

# 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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2016

**Ministry of Finance of the Czech Republic  
and the Czech National Bank**

# **Assessment of the Fulfilment of the Maastricht Convergence Criteria and the Degree of Economic Alignment of the Czech Republic with the Euro Area**

**December 2016**

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# Contents

<b>Summary and Recommendations Regarding the Czech Republic's Preparedness for Joining ERM II and the Euro Area.....</b>	<b>1</b>
<b>1 Assessment of the Current and Expected Fulfilment of the Maastricht Convergence Criteria .....</b>	<b>3</b>
1.1 Criterion on Price Stability .....	3
1.2 Criterion on the Government Financial Position .....	4
1.3 Criterion on the Convergence of Interest Rates .....	5
1.4 Criterion on Participation in the Exchange Rate Mechanism .....	6
<b>2 Assessment of the Czech Republic's Current Economic Alignment with the Euro Area.....</b>	<b>8</b>
2.1 Cyclical and Structural Alignment.....	8
2.2 Adjustment Mechanisms.....	11
<b>3 Situation in the Euro Area and New Obligations for Accession Countries.....</b>	<b>13</b>
3.1 Situation in the Euro Area.....	13
3.2 Institutional Developments in the EU and Newly Arising Obligations.....	14
<b>References.....</b>	<b>15</b>
<b>A Appendix – Maastricht Convergence Criteria .....</b>	<b>18</b>
Criterion on Price Stability.....	18
Criterion on the Government Financial Position .....	18
Criterion on the Convergence of Interest Rates.....	19
Criterion on Participation in the Exchange Rate Mechanism.....	19
<b>B Appendix – Estimated Financial Costs for the Czech Republic of Hypothetical Euro Area Entry.....</b>	<b>21</b>
<b>C Appendix – Glossary.....</b>	<b>22</b>

The Assessment of the Fulfilment of the Maastricht Convergence Criteria and the Degree of Economic Alignment of the Czech Republic with the Euro Area provides the Czech Government with a basis for appropriately timing ERM II entry and subsequent adoption of the euro by the Czech Republic. It is available on the Ministry of Finance website at:

***<http://www.mfcr.cz/en/statistics/fulfilment-of-the-maastricht-criteria>***

We welcome any relevant suggestions for improving the quality of the publication. Please send any comments to:

***[informace@mfcr.cz](mailto:informace@mfcr.cz)***

## Tables

Table 1.1: Harmonised index of consumer prices .....	4
Table 1.2: General government balance.....	5
Table 1.3: General government debt.....	5
Table 1.4: Long-term interest rates for convergence purposes .....	6

## Charts

Chart 1.1: Average HICP inflation rates in 2015 .....	3
Chart 1.2: General government balance structure .....	4
Chart 1.3: Long-term interest rates in 2015 .....	5
Chart 1.4: Nominal CZK/EUR exchange rate .....	6
Chart 2.1: Economic convergence of selected countries towards the euro area in 2015 .....	8
Chart 2.2: Real GDP growth in the Czech Republic and the euro area .....	9
Chart 2.3: Shares of economic sectors in GDP in 2015 .....	9
Chart 2.4: Shares of exports to the euro area and shares of imports from the euro area in 2016 H1.....	10
Chart 2.5: Long-term unemployment rates.....	11
Chart 2.6: Components of labour taxation in 2015 .....	12
Chart 2.7: Barriers to growth and competitiveness (GCI).....	12
Chart 2.8: Overall capital ratios .....	12
Chart 3.1: Fiscal positions in the euro area and the Czech Republic in 2015 .....	13

## Abbreviations

CNB	Czech National Bank
CZ	Czech Republic
Czech MoF	Ministry of Finance of the Czech Republic
CZK	Czech koruna
CZSO	Czech Statistical Office
EA	euro area
EC	European Commission
ECB	European Central Bank
EMI	European Monetary Institute
EMS	European Monetary System
ERM II	Exchange Rate Mechanism II
ESA 2010	European system of national and regional accounts 2010
ESM	European Stability Mechanism
EU, EU28	European Union (covering all 28 countries)
EUR	euro
GDP	gross domestic product
IMF	International Monetary Fund
MFA	Ministry of Foreign Affairs
MTO	medium-term objective
OECD	Organisation for Economic Cooperation and Development
SRF	Single Resolution Fund
SRM	Single Resolution Mechanism
SSM	Single Supervisory Mechanism

## Country codes

AT – Austria, BE – Belgium, BG – Bulgaria, CY – Cyprus, CZ – Czech Republic, DE – Germany, DK – Denmark, EE – Estonia, ES – Spain, FI – Finland, FR – France, GR – Greece, HU – Hungary, IE – Ireland, IT – Italy, LT – Lithuania, LU – Luxembourg, LV – Latvia, MT – Malta, NL – Netherlands, PL – Poland, PT – Portugal, RO – Romania, SE – Sweden, SI – Slovenia, SK – Slovakia, UK – United Kingdom

## Symbols used in tables

A dash (–) in place of a number indicates that the phenomenon did not occur.

## Cut-off dates for data sources

Macroeconomic data sources pertain to 31 August 2016 and fiscal data to 2 November 2016.

## Note

Sum totals published in tables may be subject to inaccuracy in the last decimal place in some cases due to rounding.

# Summary and Recommendations Regarding the Czech Republic's Preparedness for Joining ERM II and the Euro Area

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

**The degree of sustainable convergence** is assessed according to the Maastricht convergence criteria, which are set out in Article 140 of the Treaty and detailed in Protocol No. 13 on the Convergence Criteria annexed to the Treaty on the European Union and the Treaty on the Functioning of the European Union. These comprise a criterion on price stability, a criterion on the government financial position, a criterion on the convergence of interest rates and a criterion on participation in the exchange rate mechanism. The Czech Republic undertook to take steps to be prepared to join the euro area as soon as possible by signing the Act concerning the conditions of accession of the Czech Republic to the EU.

**Setting the date for joining the euro area** is within the competence of the Member State concerned and depends on its preparedness. Adopting the euro would entail giving up independent monetary policy and the flexible exchange rate of the koruna as effective stabilising macroeconomic instruments. The crisis of previous years has shown just how useful these instruments are in absorbing economic shocks hitting European economies. The preparedness of the economy to join the euro area must therefore be assessed not only from the perspective of its economic alignment and structural similarity, but also from the point of view of its ability to absorb asymmetric shocks and adjust appropriately to them, for example via effective fiscal policy, a flexible labour market and a sound financial sector, after the loss of independent monetary policy.

**EU countries, and especially euro area countries, continued working towards deeper integration over the past year.** An extensive reform of the rules for fiscal supervision and economic policy coordination has been carried out in order to strengthen the stability of the euro area and increase financial solidarity, and progress has been made in setting up a banking union. The changes in the economic and political framework of the EMU and in the functioning of adjustment mechanisms imply new institutional and financial obligations for countries acceding to the single currency. The convergence of each Member State and the sustainability of that convergence are assessed by the European Commission and the ECB in order to identify any economic policy problems in the areas of fiscal sustainability, competitiveness, financial market stability, economic growth and macroeconomic imbalances.<sup>1</sup>

The Czech Republic is very likely to be compliant with the **criterion on price stability** in 2016, notwithstanding the exceptionally low level of the criterion, reflecting persisting deflation in many EU countries. According to the outlook for inflation, compliance with this criterion is ensured until 2019 with a margin of around 1 pp.

The Czech Republic is also compliant with the **criterion on the government financial position**. It is likely to remain compliant with it by a sufficient margin (more than 2 pp for the deficit and 20 pp for debt) in the medium term. Compliance with the medium-term objective (MTO), which is currently set as a general government structural deficit of no more than 1% of GDP, should ensure that the Maastricht convergence criterion for a deficit of 3% of GDP is not exceeded even in a recession of the usual depth. The MTO might be tightened to 0.5% of GDP once the Czech Republic joins the euro area. Compliance with the MTO is also necessary as regards

public finance sustainability, especially given the long-term costs of population ageing. The Czech Republic is currently compliant with the MTO at its present level and is expected to be compliant over the entire forecast horizon.

The Czech Republic has long been comfortably compliant with the **criterion on the convergence of interest rates** and, according to the outlook, is likely to remain so until 2019 (by a margin of at least 2 pp).

The Czech Republic is formally non-compliant with the **criterion on participation in the exchange rate mechanism**, as it has not joined the mechanism. Assessment of this criterion will only be possible after the Czech Republic joins ERM II and the central rate of the koruna against the euro, against which exchange rate fluctuations would be monitored, has been set.

When deciding on euro area entry, account must also be taken of the **Czech economy's alignment with the euro area and its ability to adjust to possible asymmetric shocks** without its own monetary policy. The characteristics of the Czech economy as regards its economic

<sup>1</sup> The assessment is based on the Alert Mechanism Report under the Macroeconomic Imbalance Procedure, where the Czech Republic was not subject to an in-depth review (EC, 2016a).



preparedness to adopt the euro can be divided into four groups.

The first group consists of **economic indicators that speak in the long run in favour of adopting the euro**. These include the high degree of openness of the Czech economy (the exports-to-GDP ratio is 83%) and its close trade and ownership links with the euro area. These factors provide for the existence of benefits of euro adoption, such as a reduction in transaction costs and the elimination of exchange rate risk. At the same time, strong trade integration reduces the potential costs associated with adopting the single monetary policy and has therefore long been one of the most significant arguments for the Czech Republic joining the euro area. The strong trade links with the euro area are also fostering a high degree of alignment of the Czech business cycle with the euro area. A favourable factor is long-term alignment of inflation and nominal interest rates with the euro area. The Czech banking sector is not a barrier to joining the euro area either. It is stable and resilient to economic shocks, and it ensures that the transmission of monetary policy to the economy is essentially no different to that in the euro area.

The second group contains **areas where convergence was disrupted by the crisis, but where an improvement has been recorded again in the following years**. These include the real economic convergence of the Czech Republic to the euro area, which halted during the crisis but has resumed since 2014. GDP per capita (converted using common purchasing power parity) slightly exceeded 80% of the euro area average for the first time in 2015. However, there remains considerable room for long-term economic convergence. Gradual stabilisation of financial markets and renewal of their alignment with the euro area have also been observed in recent years. An improvement has also been recorded for fiscal policy, where the general government structural deficit decreased markedly in 2010–2015. Compliance with the MTO in previous years is improving the ability of fiscal policy to fulfil its macroeconomic stabilisation role going forward.

The third group consists of **areas where positive trends were disrupted by the global crisis, and a return to the convergence path has yet to occur**. This includes long-term convergence of the price level, whose previous convergence towards the euro area halted in 2009. After euro adoption, the expected gradual renewal of the convergence trend would not be able to take place via appreciation of the exchange rate and would result in a positive inflation differential compared to the euro area average. This would lead to pressure for a further drop in equilibrium real interest rates, potentially to negative levels, which, in turn, could contribute to creating macro-financial imbalances.

The fourth group contains **areas which are showing long-term problems or misalignment and which, more-**

**over, are not showing any significant improvement**. This group traditionally includes population ageing, which – not only in the Czech Republic – poses a risk to the sustainability and stabilisation function of public finances. The functioning of the Czech labour market is comparable to that in other EU Member States and has been showing signs of greater flexibility in recent years. However, it still has weak points, in particular relatively high overall labour taxation and relatively low labour mobility. The flexibility of the Czech product market has improved slightly, but is still being hampered by some administrative barriers. Quality of institutions (including enforceability of law), infrastructure and innovation remain weaknesses. Significant differences vis-à-vis the euro area persist in the structure of the Czech economy, which is characterised by a high share of industry and a relatively low share of services. Some differences also remain in the degree of financial intermediation and the structure of financial assets and liabilities of non-financial corporations and households. These factors may be a source of asymmetric shocks and cause the single monetary policy to have different effects.

When deciding on the timing of euro area entry, the costs of euro adoption must also be taken into account. The estimated **financial costs** associated with euro area entry that were not known when the Czech Republic joined the EU would mainly include a capital deposit in the European Stability Mechanism of around CZK 51 billion payable within four years (with an additional contingent liability of almost CZK 390 billion) and a transfer of CZK 8.7–20.9 billion in contributions from banks registered in the Czech Republic to the Single Resolution Fund (collected until then in the National Resolution Fund).

**To sum up**, all the Maastricht criteria except for ERM II participation **are likely to be fulfilled** in the medium term. The **preparedness of the Czech Republic itself to adopt the euro has improved further** compared to previous years **but still cannot be assessed as sufficient for adopting the single currency**. Similarly, the economic situation in the euro area cannot be assessed as sufficiently stabilised. Economic alignment across euro area economies is still not adequate. Some countries are facing continued deflation. Debt problems remain unresolved in a number of countries and the entire euro area is grappling with low enforceability of the fiscal rules. Another problem affecting the EU and the euro area is the **considerable uncertainty about its future political, economic and institutional set-up**. The result of the Brexit referendum is exacerbating this uncertainty.

**In view of the above facts, the Ministry of Finance and the Czech National Bank**, in line with the Czech Republic's Updated Euro-area Accession Strategy, **recommend that the Czech government should not set a target date for euro area entry for the time being**. This recommendation implies the conclusion that the Czech Republic should not attempt to enter ERM II during 2017.

# 1 Assessment of the Current and Expected Fulfilment of the Maastricht Convergence Criteria

Four nominal convergence criteria are assessed upon accession to the euro area: a criterion on price stability, a criterion on the government financial position, a criterion on the convergence of interest rates and a criterion on participation in the exchange rate mechanism. The Czech Republic fulfils the first three criteria by a sufficient margin; it has not joined the exchange rate mechanism yet. The actual assessment of compliance with all the convergence criteria takes place at least two quarters ahead of the changeover date. Precise definitions of all the criteria are given in Appendix A; this section provides a detailed analysis of compliance with the criteria.

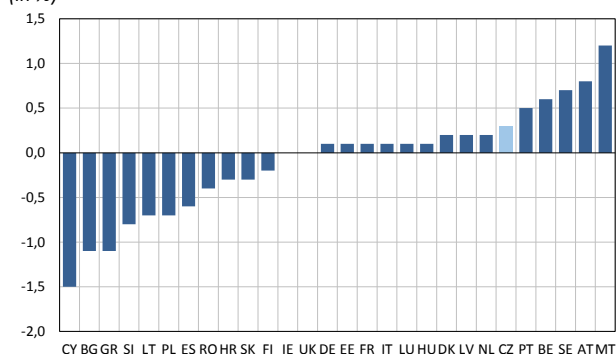
## 1.1 Criterion on Price Stability

The price stability criterion assesses the rate of consumer inflation, which must not be more than 1.5 pp higher than the average of the three best performing EU countries in terms of price stability.

**The Czech Republic has been compliant with this criterion since 2013.** Owing to a deeply negative output gap, the domestic economy had an anti-inflationary effect in 2013–2014. The average inflation rate was only 0.4% in 2014. This occurred despite the fact that the CNB decided in November 2013 to use the exchange rate as an additional monetary policy instrument in order to maintain price stability in line with its inflation target. The very low inflation was also due to a decline in administered prices, caused mainly by lower electricity prices. The average inflation rate in 2015 was only 0.3%, the second-lowest level in the history of the independent Czech Republic, mainly because of a sharp decline in the price of oil. Czech inflation since 2014 should also be seen in the broader context of very low inflation in the EU, where many countries were even in deflation. In 2015, the Czech Republic was among the EU countries with a higher inflation rate (see Chart 1.1).

Chart 1.1: Average HICP inflation rates in 2015

(in %)



Source: Eurostat (2016).

The inflation forecast for 2016 should be assessed in the same context. The sharp decline in oil prices on global markets and euro area industrial producer prices will keep pushing down domestic inflation. By contrast, domestic demand pressures, reflecting domestic economic growth and a related visible improvement in the labour market situation, including faster wage growth, will continue to foster higher inflation.<sup>2</sup> **The price stability criterion should nonetheless be fulfilled in 2016,** despite a very low foreseen criterion value reflecting continued deflation in many EU countries.

Growing domestic demand and the unwinding of the effects of lower oil prices should foster an upswing in domestic inflation towards the 2% inflation target in the years ahead. The assumed exit from the CNB's exchange rate commitment and a subsequent gradual rise in nominal interest rates will help stabilise inflation close to the target in 2017–2019. The level of the criterion should meanwhile increase, as a recovery in inflation is forecasted across the EU. Consequently, **the criterion should also be fulfilled in 2017–2019 by a sufficient margin.**

Fulfilment of the price stability criterion has long been aided by the CNB's inflation target, which has been set at 2% (for the national consumer price index) since 1 January 2010. The CNB seeks to ensure that actual inflation does not deviate from the target by more than one percentage point. Given the ECB's similar definition of price stability and the inflation targets of the non-euro area EU Member States, this target creates good conditions for future sustainable fulfilment of the price stability criterion.

<sup>2</sup> According to the Ministry of Finance's analyses, the Czech economy has had a positive output gap since the start of 2015.

**Table 1.1: Harmonised index of consumer prices***(average for last 12 months vs. average for previous 12 months as of end of period; growth in %)*

	2013	2014	2015	2016	2017	2018	2019
Average for 3 EU countries with lowest inflation*	0.3	-0.2	-0.9	-0.4	0.8	1.3	1.5
Reference value	1.8	1.3	0.6	1.1	2.3	2.8	3.0
Czech Republic	1.4	0.4	0.3	0.6	1.5	1.8	1.9

Note: \* More precisely, the three best performing member countries in terms of price stability (see Appendix A). The outlook for 2016–2019 was taken from the Convergence Programmes and Stability Programmes of individual Member States except Greece, which does not submit a stability programme. Owing to the unavailability of average HICP inflation rates, private consumption deflators were used for Germany and Spain and average national CPI inflation rates were used for Austria, Croatia and Slovenia. Greece was excluded from the calculation of the criteria in the assessment of inflation for 2013, Bulgaria, Greece and Cyprus were excluded for 2014, Greece and Cyprus were excluded for 2015 and Cyprus and Romania were excluded for 2016. The approach adopted was thus similar to that used by the European Commission and the ECB in their June 2013, June 2014 and June 2016 Convergence Reports.

Source: Eurostat (2016a), Convergence Programmes and Stability Programmes of EU Member States. Czech MoF calculations.

## 1.2 Criterion on the Government Financial Position

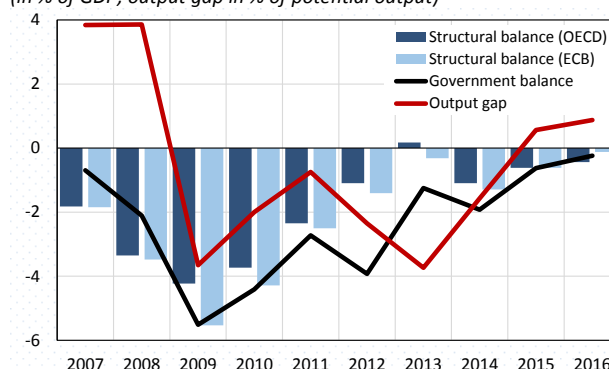
The criterion on the government financial position is satisfied only when both components of the fiscal criterion, i.e. a general government deficit of less than 3% of GDP and general government debt of less than 60% of GDP, are fulfilled in a sustainable manner.

### 1.2.1 General government deficit

**The excessive deficit procedure against the Czech Republic, which had been running since 2009, was abrogated in June 2014.** The general government deficit increased to 1.9% of GDP in 2014 due to a one-off accrual shortfall in excise tax, a sizeable rise in investment and a change in the definition of general government sector under ESA 2010 (in particular the inclusion of the Deposit Insurance Fund, respectively the Financial Market Guarantee System). The general government deficit in 2015 was 0.6% of GDP. It was due to strong economic growth and also to government measures.

**The Ministry of Finance expects a general government deficit of 0.2% of GDP for 2016.** On the revenue side, VAT revenues and excise tax on tobacco and fuels should rise compared to 2015. Conversely, income from EU funds is expected to fall due to the end of the previous 2007–2013 programming period. This is also reflected in a decline in government investment on the expenditure side. There is also a slight decrease in interest expenditure paid on general government debt.

According to current estimates by **the Czech Ministry of Finance, the general government balance should continue to improve over the years of the outlook, reaching 0.5% of GDP in 2019.** Based on this outlook, this part of the public finance criterion is expected to be fulfilled in the future as well. As regards the smooth functioning of the Czech economy (see also section 2.2), **it is also necessary to endeavour to meet the medium-term budgetary objective (MTO) of achieving a structural general government deficit of no more than 1.0% of GDP.** The Czech Republic is currently compliant with the MTO and is expected to remain so. Chart 1.2 captures the structural components of the general government balance using the OECD method, which is also used in modified form by the European Commission, and using the alternative ECB method (for details see Appendix C).

**Chart 1.2: General government balance structure***(in % of GDP; output gap in % of potential output)*

Note: The structural balance is calculated using the OECD and ECB methods. The 2016 data are a Czech MoF estimate.

Source: CZSO (2016). Czech MoF calculations.

Using the OECD method, the Ministry of Finance estimates the structural deficit at 0.4% of GDP in 2016, 0.6% of GDP in 2017, 0.3% of GDP in 2018 and 0.0% of GDP in 2019.

Based on the ECB method, the Ministry of Finance estimates the structural deficit at 0.1% of GDP in 2016 and 0.4% of GDP in 2017, 0.0% of GDP in 2018 and structural surplus at 0.3% of GDP in 2019. The government's plans thus focus on fulfilling the MTO throughout the outlook period.

The MTO for the structural deficit may be tightened to no more than 0.5% of GDP when the Czech Republic joins the euro area (under the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union). For parties to the Treaty, the structural deficit limit of 1.0% of GDP only applies if the government debt ratio is significantly below 60% of GDP and risks to long-term fiscal sustainability are low.

### 1.2.2 General government debt

Given its low initial level of government debt, **the Czech Republic has had no problem fulfilling this item of the criterion.** The debt surged in 2009–2012 from less than 30% of GDP to around 45% of GDP in 2013 owing to the global financial and economic crisis. Since then, however, the government debt-to-GDP ratio has been falling markedly. This is being aided by gradual release of the

budget deficit financing reserve and more efficient management of assets on the Single Treasury Account. Renewed economic growth since 2014 and a decline in debt servicing costs are also major factors.

Given the current fiscal policy settings and forecasted economic growth, **the debt-to-GDP ratio should continue to decline gradually, reaching around 37% of GDP in 2019.** It should be thus well below the reference debt level defined in the Maastricht convergence criteria. The total general government debt is lower than the EU average. However, the margin of fulfilment of the debt criterion shrank following the outbreak of the crisis. The recession also showed that without a sufficient margin the Maastricht limit could be reached quickly.

**Table 1.2: General government balance**  
(in % of GDP)

	2013	2014	2015	2016	2017	2018	2019
Reference value	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
Czech Republic	-1.2	-1.9	-0.6	-0.2	-0.2	0.1	0.5

Source: CZSO, Czech MoF

**Table 1.3: General government debt**  
(in % of GDP)

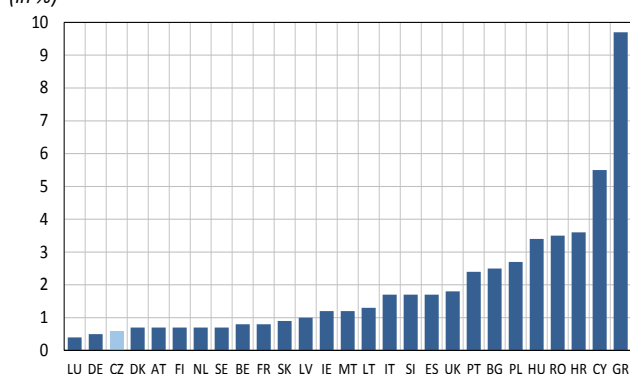
	2013	2014	2015	2016	2017	2018	2019
Reference value	60.0	60.0	60.0	60.0	60.0	60.0	60.0
Czech Republic	44.9	42.2	40.3	38.6	38.5	38.0	37.1

Source: CZSO, Czech MoF

### 1.3 Criterion on the Convergence of Interest Rates

This criterion states that long-term interest rates, defined as yields on bonds with a residual maturity of 10 years, must not be more than 2 pp higher than the average in the three best performing EU states in terms of price stability.

**Chart 1.3: Long-term interest rates in 2015**  
(in %)



Data are not available for Estonia. Source: Eurostat (2016a).

**The adverse fiscal effects of population ageing pose the main risk to the long-term development of general government finance.** Quite significant measures were taken in previous years in the area of public pensions (changes to the current pay-as-you-go system). The latest Ageing Report (EC, 2015) is thus more optimistic for the Czech Republic, with the projection indicating broad sustainability. However, some measures have been taken recently which worsen the financial sustainability of the public pensions system.<sup>3</sup> However, risks also stem from other areas of long-term expenditure, specifically from the configuration and functioning of the health and long-term care systems.

Annual average long-term interest rates in the Czech Republic have been below 1% practically since the end of 2014. **The Czech Republic thus constantly fulfilled the interest rate criterion by a considerable margin in the period under review.**

Fiscal stability and credibility are reflected in the Czech Republic's constantly high sovereign rating and in smooth subscription of government bonds. In an environment of subdued inflation and unprecedentedly low interest rates throughout the EU, this is fostering low Czech government bond yields. Based on developments to date and on the construction of this criterion, it can be assumed that **the Czech Republic should stay compliant with this criterion in the period ahead.** This is conditional on maintaining financial market confidence in sound macroeconomic developments and the sustainability of Czech public finance, which, given the current and expected situation, should not be a problem.

<sup>3</sup> A retirement age ceiling of 65 years has been established (in combination with a revision mechanism for periodically testing that ceiling) and the government can now increase old-age pensions by up to 2.7% on average if such growth is not achieved by applying the indexation equation.

**Table 1.4: Long-term interest rates for convergence purposes***(12-month average; in %)*

	2013	2014	2015	2016	2017	2018	2019
Average for 3 EU countries with lowest inflation*	4.4	1.8	1.8	1.9	4.1	2.3	1.8
Reference value	6.4	3.8	3.8	3.9	6.1	4.3	3.8
Czech Republic	2.1	1.6	0.6	0.7	1.2	1.5	1.8

Note: \* More precisely, the three best performing countries in terms of price stability (see Appendix A). The outlook for long-term interest rates in 2016–2019 was taken from the Convergence Programmes and Stability Programmes. Owing to the unavailability of data for some reference countries, the criterion was partly calculated by fixing the current real interest rates and adding the inflation outlooks for those countries.

Source: Eurostat (2016b), Convergence Programmes and Stability Programmes of EU Member States. Czech MoF calculations.

## 1.4 Criterion on Participation in the Exchange Rate Mechanism

The admission of an EU Member State into the euro area is conditional on a successful, at least two-year stay of the national currency in ERM II. The exchange rate is expected to move within the fluctuation band of  $\pm 15\%$  without devaluation of the central rate and excessive pressures on the exchange rate. **Formal fulfilment of the criterion on exchange rate stability will only be possible after the Czech Republic joins ERM II**, so the assessment of its fulfilment can be made only at an analytical level.

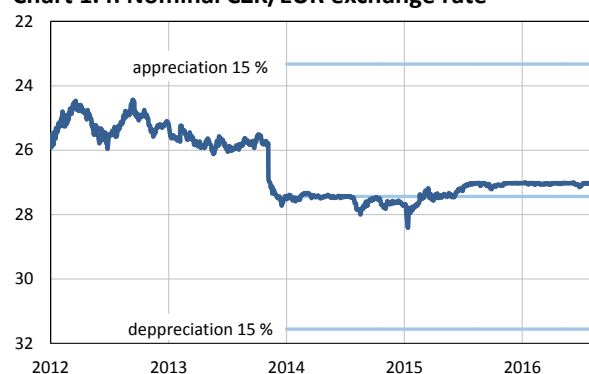
For these purposes, the hypothetical CZK/EUR central parity is set as the average exchange rate in 2014 Q1, i.e. the quarter preceding hypothetical ERM II entry at the start of 2014 Q2, which would have allowed euro adoption on 1 January 2017. With the aid of this parity it is theoretically possible to monitor whether the Czech Republic would have fulfilled the exchange rate stability criterion in the given time period.

Chart 1.4 shows that **the exchange rate fluctuated closely around the hypothetical central parity in the period under review and did not leave the  $\pm 15\%$  band**. This was naturally due to the fact that in the period under review, the CNB used the exchange rate as an instrument for further easing monetary policy after the zero lower bound on interest rates had been reached.

The koruna weakened sharply to close to CZK 27 to the euro after the exchange rate commitment was announced (in November 2013). The exchange rate then stabilised for some time at close to CZK 27.5 to the euro without further foreign exchange interventions.<sup>4</sup> In 2015 Q2, the koruna's exchange rate started to appreciate towards CZK 27 to the euro due to favourable economic growth. Despite continued appreciation pressures, the CNB maintained it just above this level in the following period using further interventions. The foreign exchange commitment will apply until conditions

<sup>4</sup> The CNB regards the commitment as asymmetric, i.e. one-sided in the sense that it will not allow the koruna to appreciate to levels it would no longer be possible to interpret as "close to 27 CZK/EUR". On the stronger side of the 27 CZK/EUR level, the CNB is preventing the koruna from appreciating further by intervening on the foreign exchange market, i.e. by selling koruna and buying euro. On the weaker side of the 27 CZK/EUR level, the CNB is allowing the koruna exchange rate to float.

are created for sustainable fulfilment of the inflation target at 2%. **The return to conventional monetary policy should not imply a sharp appreciation of the exchange rate** to the slightly overvalued level recorded before the CNB started intervening, among other things because the weaker exchange rate of the koruna is in the meantime passing through to the price level and other nominal variables.<sup>5</sup> Any subsequent exchange rate appreciation in the longer run owing to the renewal of real convergence should not be inconsistent with fulfilment of the exchange rate criterion, as the assessment of this criterion has historically been more lenient on the appreciation side and shifts of the central parity towards a stronger rate have commonly been tolerated.

**Chart 1.4: Nominal CZK/EUR exchange rate**

Note: The hypothetical central parity is simulated by the average exchange rate for 2014 Q1. Data up to 31 August 2016.

Source: CNB (2016a). Czech MoF calculations.

The length of stay of an EU Member State in ERM II is set by the Treaty at a minimum of two years before the assessment of preparedness to adopt the euro. The Czech Republic's September 2003 Euro-area Accession Strategy and its August 2007 update state that **the Gov-**

<sup>5</sup> The slight undervaluation of the real exchange rate compared to its equilibrium level which occurred after the nominal depreciation of the currency at the end of 2013 was partly reversed by the subsequent evolution of the price levels in the Czech Republic and the euro area, as the cumulative inflation differential exceeded 1%. Any exchange rate appreciation following the discontinuation of the exchange rate commitment will also be dampened by hedging of exchange rate risk by exporters during the existence of the commitment, by the closing of koruna positions by financial investors, and by possible CNB interventions to mitigate exchange rate volatility.

**ernment and the CNB agree on staying in ERM II for the minimum required period only.** This implies that the Czech Republic should enter the ERM II only after it has achieved a high degree of economic alignment and after conditions have been established which enable it to

introduce the euro shortly after the assessment of the exchange rate criterion. In addition, the Czech Republic should enter ERM II amid a stable situation in the domestic economy and stable global financial markets.

## 2 Assessment of the Czech Republic's Current Economic Alignment with the Euro Area

The Czech Republic's future entry into the euro area ensues from the commitments associated with EU membership. Adoption of the single European currency should lead to the elimination of exchange rate risk in relation to the euro area and to a related reduction in the costs of foreign trade and investment. This should further increase the **benefits** accruing to the Czech Republic from its intense involvement in international economic relations.

Besides the aforementioned benefits, however, adoption of the euro will simultaneously imply **costs and risks arising from the loss of independent monetary policy and exchange rate flexibility** vis-à-vis major trading partners. The crisis of recent years proved the usefulness of these effective adjustment mechanisms.

**The analyses are divided into two basic groups.**<sup>6</sup> The section entitled "Cyclical and Structural Alignment" indicates the size of the risk of economic developments being different in the Czech Republic compared to the euro area and hence the risk of the single monetary policy being inappropriate for the Czech economy. The section entitled "Adjustment Mechanisms" answers the question of to what extent the Czech economy is capable of absorbing the impacts of potential asymmetric shocks using its own adjustment mechanisms. The basic theoretical starting point for the underlying analyses is the theory of optimum currency areas. These analyses are aimed at assessing the evolution of the alignment indicators over time and in comparison with selected countries.

### 2.1 Cyclical and Structural Alignment

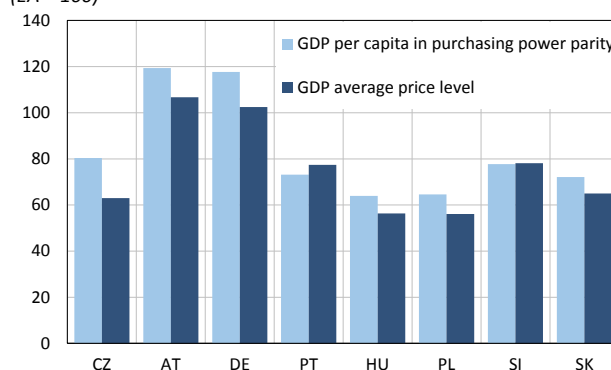
A high degree of alignment of the Czech economy with the euro area economy is a necessary condition for the euro adoption costs arising from the loss of the Czech Republic's own monetary policy to be relatively small.

The **degree of real economic convergence** is an important indicator of the Czech economy's similarity to the euro area. The Czech economy was converging towards the euro area in real terms until 2008, when this trend was halted by the financial and subsequently economic crisis. It resumed in 2013, and in 2015 the level of Czech economic activity slightly exceeded 80% of the euro area average for the first time. The price level relative to the euro area remains below the historical high reached in 2008 (71.1%; in 2015 it was 63%). Its post-2008 drop initially corrected the excessive appreciation of the koruna recorded in the pre-crisis period and in 2013–2014 reflected the weakening of the koruna due to the CNB's use of the exchange rate as an additional instrument for easing the monetary conditions. The wage level in the Czech Republic in 2015 was just under 37% of the euro area average when converted using the exchange rate and about 59% when converted using purchasing power parity. Looking to the future, it can be expected that the renewed convergence of economic activity will be again accompanied by further price and wage catch-up with the advanced euro area countries. Renewed equilibrium real appreciation of the koruna against the euro can thus be expected, albeit probably at a lower pace than before the crisis. This is likely to

take place partly via a slightly positive inflation differential vis-à-vis the euro area average. Euro adoption within the next five years would further increase the inflation differential and could lead to inflation rising noticeably above the current 2% target. This would result in lower real interest rates compared to the euro area average and related risks to macro-financial equilibrium.

**Chart 2.1: Economic convergence of selected countries towards the euro area in 2015**

(EA = 100)



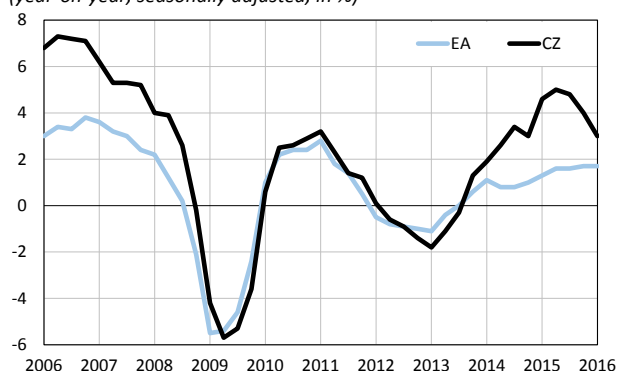
Source: Eurostat (2016). CNB calculations.

Sufficient **cyclical alignment of economic activity** increases the likelihood that the single monetary policy in the monetary union will be appropriately configured from the perspective of the Czech economy. The analyses indicate a sustained high degree of alignment of the Czech Republic with the euro area in terms of overall economic activity, even when adjusted for the strong common external shock in the form of the global financial and economic crisis.

<sup>6</sup> These analyses are presented in detail in a document entitled *Analyses of the Czech Republic's Current Economic Alignment with the Euro Area in 2016*, which was prepared by the CNB and will be published on its website. The above document compares developments in the Czech Republic with those in Austria, Germany, Portugal, Hungary, Poland, Slovenia and Slovakia (the "countries under comparison").

**Chart 2.2: Real GDP growth in the Czech Republic and the euro area**

(year-on-year, seasonally adjusted, in %)



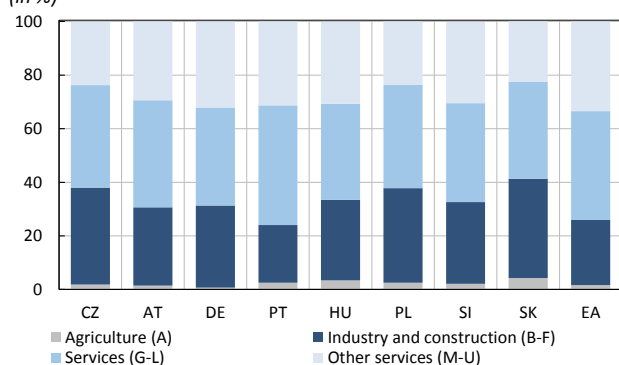
Source: Eurostat (2016). CNB calculations.

The alignment of the **cyclical component of unemployment**, defined as the difference between the actual unemployment rate and its estimated equilibrium level, is also relatively high in the case of the Czech Republic. In this respect, the single monetary policy of the euro area would therefore not necessarily imply increased costs for the Czech economy.

Similarity of the **structure of economic activity** with the euro area should reduce the risk of asymmetric economic shocks. The differences in the structure of the Czech economy compared to that of the euro area, consisting in a higher share of industry and a lower share of services, are not decreasing. For the Czech Republic, this may mean a higher risk of asymmetric shocks to which the potential single monetary policy will not be able to respond in full. Structural misalignment may thus pose a risk as regards adopting the single currency.

**Chart 2.3: Shares of economic sectors in GDP in 2015**

(in %)



Note: The sectors are broken down by NACE classification: A: agriculture, forestry and fishing; B–F: industry and construction; G–L: services (trade, transport, ICT, financial intermediation, real estate services); M–U: other services.

Source: Eurostat (2016). CNB calculations.

Fast convergence of **nominal interest rates** in connection with joining the euro area acted as an asymmetric shock in some countries in the past, generating macroeconomic imbalances and risks to financial stability. Smooth euro area entry should therefore be preceded by nominal interest rate convergence, which should be gradual and based on fundamentals. The difference

between Czech and euro area market interest rates has long been very small due to sustained low and stable inflation. It did not increase significantly even during the financial turbulence episode in 2009 or during the euro area debt crisis in 2012. Consequently, there is no risk of euro adoption leading to a rapid fall in nominal rates and related emergence of macroeconomic imbalances. This also indicates that financial markets view the Czech Republic's government debt situation as sustainable.

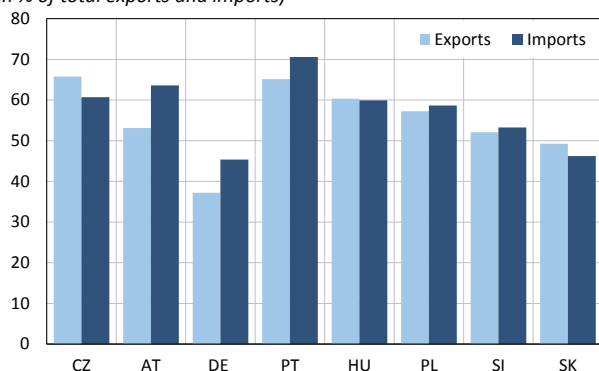
The **exchange rate** of the koruna against the euro and dollar, as well as its volatility, has been fundamentally affected since November 2013 by the CNB's use of the exchange rate as an additional instrument for easing monetary policy. Following the announcement of the exchange rate commitment, the exchange rate stabilised just above CZK 27 to the euro. This led to an increase in the correlation between the exchange rate of the koruna against the dollar and that of the euro against the dollar. Even in the previous period, however, this correlation was the highest and most stable by comparison with the currencies of the Central European region. The **volatility of the exchange rate** of the koruna against the euro has been relatively low and stable (except during the crisis), which is a favourable factor for euro adoption. At the same time, the relatively high volatility immediately before the crisis and after its onset largely reflects desirable dampening of the impacts of economic shocks on the Czech Republic via the exchange rate.

The Czech economy's strong **trade and ownership links** with the euro area increase the benefits of eliminating potential fluctuations in the exchange rate and reducing transaction costs. The euro area is the destination for about 65% of Czech exports, the highest level among the countries under comparison, and the source of about 60% of Czech imports. The share of intra-industry trade is relatively high as well. The ownership linkages in the Czech economy, as measured by the ratio of foreign direct investment from the euro area to GDP, are the highest among the countries under comparison. The ownership linkages in the other direction (i.e. investment in the euro area) in the Czech Republic are the highest among the new Member States, but are still low relative to the old EU Member States.



**Chart 2.4: Shares of exports to the euro area and shares of imports from the euro area in 2016 H1**

(in % of total exports and imports)



Source: Eurostat (2016), IMF. CNB calculations.

The **financial sector** in the Czech Republic is still significantly smaller than that in the euro area, and this difference increased further in 2015. The depth of financial intermediation in the Czech Republic, as measured by the ratio of financial institutions' assets to GDP, is less than half of that in Germany and only one-third of that in the euro area. However, the depth of financial intermediation in the euro area should not be regarded as a target, as the financial crisis highlighted the risk of having an excessively large financial sector. The shallower financial intermediation in the Czech Republic is mostly due to lower private sector debt. Nevertheless, gradual deleveraging of the private sector is taking place in the euro area (from 160% of GDP in 2011 to 139% of GDP in 2015), while the debt ratio is increasing slightly in the Czech Republic (from 58% of GDP to 59% of GDP in the same period).

The **structure of the financial assets and liabilities of Czech non-financial corporations and households** is similar overall to that of euro area entities, but still shows some differences, which could contribute to the single monetary policy having different impacts. Compared to advanced euro area countries, loans have a lower weight in the net debtor position of Czech corporations, while the weight of shares and other equity is higher due to a far lower proportion of shares in financial assets (a lower rate of corporate investment in other non-financial corporations). The net debtor position of Czech corporations fell between 2008 and 2016, mainly reflecting subdued growth in liabilities and faster growth in financial assets. Corporations in the Czech Republic have the highest levels of highly liquid assets as a percentage of GDP relative to the other countries under comparison. Due to higher issuance of securities in previous years, the ratio of liabilities in the form of securities to GDP is almost comparable with that in the euro area. The net creditor position of Czech households is about half that in the euro area. Moreover, as in the case of corporations, there are persisting differences in structure. On the liability side, the debt ratio of Czech households is half that in the euro area. On the asset side, there persists – despite slight convergence – an

inverse ratio of the liquid to the investment component of household portfolios, with the liquid component dominating in the Czech Republic and the investment component dominating in the euro area.

A similar function of the interest rate channel of **monetary policy transmission** across the countries of the monetary union is a prerequisite for successful functioning of the single monetary policy. The effect of monetary policy rates on client rates in the Czech Republic does not differ greatly from that in the euro area. Rate transmission is fast, more than half of it taking place within one month. The global financial crisis led to a temporary weakening, or slowdown, of the transmission of monetary policy rates in the Czech economy as a result of an increase in client risk premia. This, however, is a traditional sign of cyclicity associated with a tightening of credit conditions. The spread between rates on new loans to non-financial corporations and the monetary policy rate in the Czech Republic is comparable to that in the euro area. However, its components, expressing various aspects of financial risk differ, due mainly to persisting problems in some euro area countries. The structure of interest rate fixations on new loans to non-financial corporations in the Czech Republic is similar to that in the euro area. Mortgage loans in the Czech Republic are dominated by loans with fixations of over one year and up to five years, while in the euro area longer fixations are more common; however, this is not a significant difference in terms of future adoption of the euro.

Differences in **inflation persistence**, i.e. the speed at which inflation returns to equilibrium after a shock, can result in the single monetary policy having different impacts in the individual countries of the monetary union. Inflation persistence in the Czech Republic has been around or slightly below the average among the countries under comparison over the past ten years. The difference is not significant even compared to the euro area core countries. Inflation persistence thus does not pose a significant risk to the symmetric effect of the single monetary policy in the Czech economy after euro adoption.

As in previous periods, the analysis of **alignment on financial markets** (the money, foreign exchange, bond and stock markets) with the euro area reveals that synchronisation in the individual segments of the Czech financial market has long been mostly high and comparable with the euro area countries. In 2009, the situation in the Czech financial markets started to return gradually to the pre-crisis degree of alignment of the markets under review. However, this trend is currently being affected by active central bank policy and measures.

The degree of **euroisation** in the Czech Republic has been gradually rising but remains relatively low, due mainly to high confidence in the macroeconomic and institutional environment. The use of foreign currency is

concentrated in the sector of firms operating in the real estate services sector and in industrial corporations, where it is associated with trade integration with the euro area and where foreign currency loans have thus long been used as a form of natural hedging against

exchange rate risk. Relative to the other countries in the region, Czech households' demand for foreign currency loans and deposits remains low. Czech households have a negligible amount of foreign currency loans.

## 2.2 Adjustment Mechanisms

If set correctly, **fiscal policy** – like monetary policy – should have a countercyclical effect and thus be a stabilising element for the economy. Otherwise it becomes a source of deepening macroeconomic imbalances and economic shocks itself. The closer the structural part of the general government balance is to zero and the lower is the general government debt, the more room there will be at a time of economic downturn for automatic stabilisers to function and countercyclical discretionary measures to be implemented. Czech budget policy was characterised by chronic deficits and a procyclical effect for a major part of the period under review. Fiscal policy had the desirable countercyclical nature in 2009, when government anti-crisis measures were adopted, and again in 2014–2015, when a fiscal policy easing helped the economy recover and boosted economic growth. By contrast, the fiscal consolidation launched in 2010 significantly reduced the budget deficits, albeit at the cost of a procyclical restrictive effect of fiscal policy and an economic downturn in 2012 and 2013. Overall, however, the structural deficit recorded a marked decrease in 2010–2015, culminating in compliance with the medium-term objective (MTO) in previous years. Meeting the MTO is a precondition for fiscal policy to be ready to fulfil its macroeconomic stabilisation role effectively after the loss of independent monetary policy associated with euro adoption.

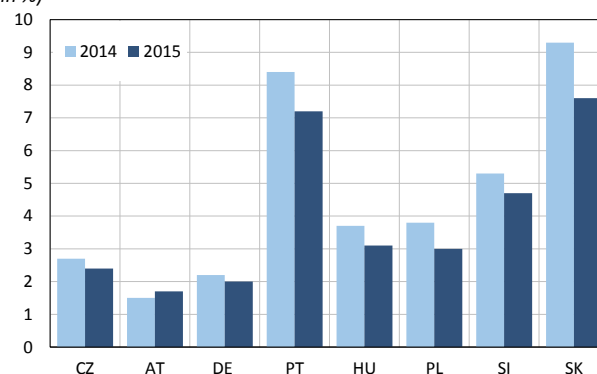
The Czech Republic's total **general government debt** is low compared to that of many EU countries. However, coping with population ageing, especially in the pension and health systems, will be of key importance for its sustainability. The relatively high share of mandatory expenditures, which are time-consuming and politically challenging to change, is also a risk. Although compliance with the fiscal convergence criteria can be expected in the years ahead and the preparedness to enter the euro area has significantly improved in this respect, the functioning of fiscal adjustment mechanisms remains in some respects a possible limiting area in the assessment of the Czech Republic's ability to adopt the euro.

The **labour market** is another important mechanism through which the economy can cope with asymmetric shocks in the absence of independent monetary policy. The Czech Republic has seen a slight rise in labour force flexibility over the last ten years, manifested, among other things, in greater use of shorter working hours in response to the recession. A low unemployment rate, including its long-term component, and a high rate of

economic activity of the population relative to the other countries under review can also be viewed as positive. Regional differences in unemployment are also gradually falling again. The weak points in the Czech labour market still include relatively low regional and international labour mobility.

**Chart 2.5: Long-term unemployment rates**

(in %)

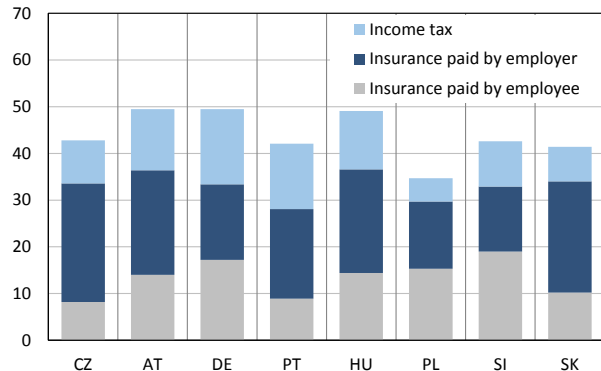


Source: Eurostat (2016).

Labour market flexibility is also significantly affected by **institutional rules on the labour market**. One of them is the minimum wage, whose ratio to the average wage is gradually rising in the Czech Republic but is still one of the lowest among the countries under comparison. The minimum wage may thus have an adverse effect on wage flexibility mainly in low-skilled jobs, where it makes up 95% of the average wage. Overall labour taxation in the Czech Republic is relatively high and has risen slightly further in the last year. The financial incentives to work arising from the configuration of taxes and social benefits remain relatively low in the Czech Republic, especially for the initial phase of unemployment of childless individuals and, compared to some countries, also for the long-term unemployed from families with children. Protection of regular employment is still relatively high, while protection of temporary jobs is relatively low. Labour market regulation in the Czech Republic is thus comparable to that in European countries, which are, however, among the least flexible by international comparison.

**Chart 2.6: Components of labour taxation in 2015**

(in % of average wage)



Source: OECD (2016).

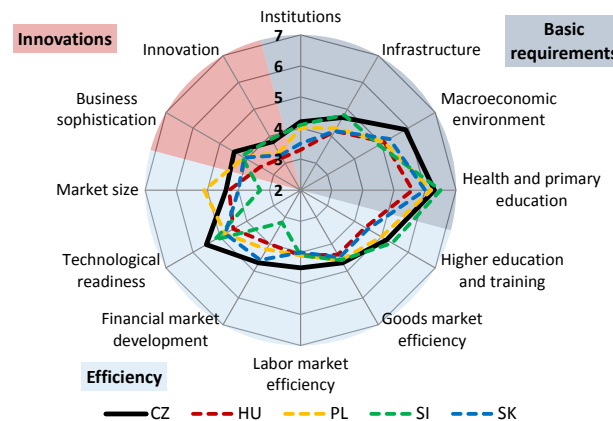
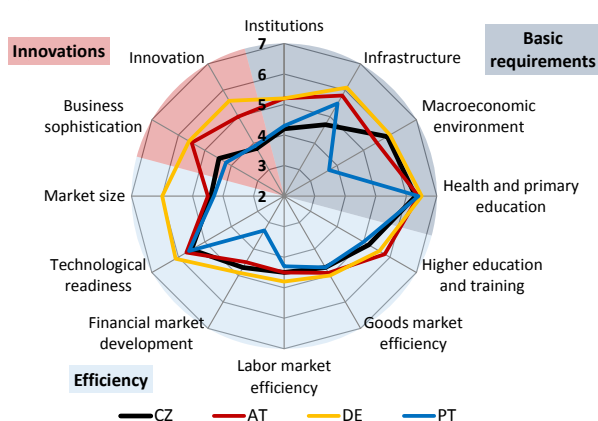
The **response of wages to the business cycle** can enhance the economy's ability to absorb shocks to which the single monetary policy cannot respond sufficiently. Firms in the Czech Republic adjusted their wage bill in response to the drop in demand in the post-crisis years

more often than firms in the euro area, in particular by reducing bonuses and benefits in addition to indexing and freezing wages. Given the above-average share of flexible wage components in the total wage bill, this indicates the possibility of some substitution between base wage and flexible wage component flexibility at the firm level in the Czech Republic.

Although the Czech Republic's position in the area of **product market flexibility** improved slightly compared to the previous year, its business environment is more burdened by administrative and regulatory barriers than those in the other countries under comparison. The Czech Republic's ranking as regards barriers to growth and competitiveness is unchanged since 2006. The chart below shows that quality of institutions (including enforceability of law), infrastructure and innovation remain weaknesses. These shortcomings in the business environment reduce product market flexibility.

**Chart 2.7: Barriers to growth and competitiveness (GCI)**

(scores for main pillars of the index; 2016–2017)

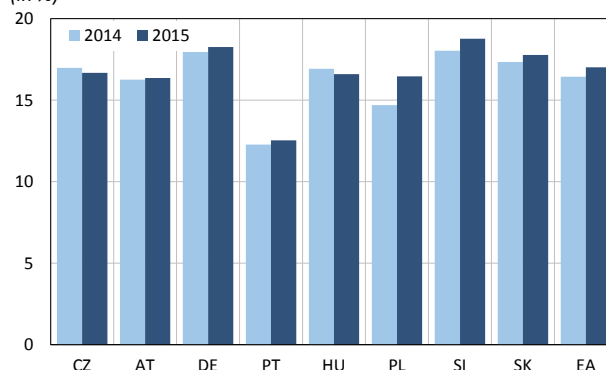


Note: The Global Competitiveness Index (GCI) evaluates countries' competitiveness by means of scores in 12 pillars grouped into three categories (factors, innovation and efficiency). The index takes values in the range of 1–7, with a higher index value meaning higher competitiveness. Source: World Economic Forum (2016).

Stability and effectiveness of the **banking sector** play a key role in the economy's ability to absorb shocks. By contrast, an unsound banking sector can generate shocks and propagate them to the real economy. It can also cause problems in the fiscal area. Thanks to sufficient capitalisation and operating profits, the resilience of the Czech banking sector to adverse shocks is high and domestic banks thus should be able to withstand potential large credit losses. The quality of the loan portfolio has improved a little recently. Risks are linked with the implementation of the banking union project, which the Czech Republic would automatically join upon euro adoption. These risks are due to the transfer of some powers to the EU level without transfer of responsibility for the overall condition of the national financial sector.

**Chart 2.8: Overall capital ratios**

(in %)



Note: The capital ratio is the ratio of a bank's capital to its risk-weighted assets. It thus expresses the bank's financial strength and measures its ability to cover any future losses with capital. Source: IMF (2016).

# 3 Situation in the Euro Area and New Obligations for Accession Countries

## 3.1 Situation in the Euro Area

The economic situation in the euro area has stabilised somewhat recently. However, economic developments remain mixed across countries. In many countries, a stronger economic recovery is being hampered by structural problems, lower competitiveness, sluggish investment growth or high public and private sector debt.

Economic alignment of euro area countries is essential to the smooth functioning of the monetary union. Persisting differences in the economic level are reducing the effectiveness of the single monetary policy, even though some external and internal imbalances have narrowed owing to the crisis and the stricter regulatory framework. The situation in Greece calmed temporarily after agreement on a third bailout programme, financed from the European Stability Mechanism (ESM), was reached in August 2015.

On the other hand, economic and political uncertainty throughout the EU was increased by the outcome of the referendum held in the UK on 23 June 2016, in which voters decided to leave the EU. This decision may become an incentive for advocates of the intergovernmental approach aimed at strengthening the role of the Member States in European integration. EU institutions are currently tasked with preparing an agreement on the conditions of the UK's exit from the EU. Its specific features will determine further political and economic developments in the EU. The UK is not a part of the euro area and the impacts of Brexit on EU economic growth cannot be quantified because of a number of unknowns. The impacts on individual euro area countries will probably be negative, depending mainly on the extent of their mutual trade and financial links with the UK.

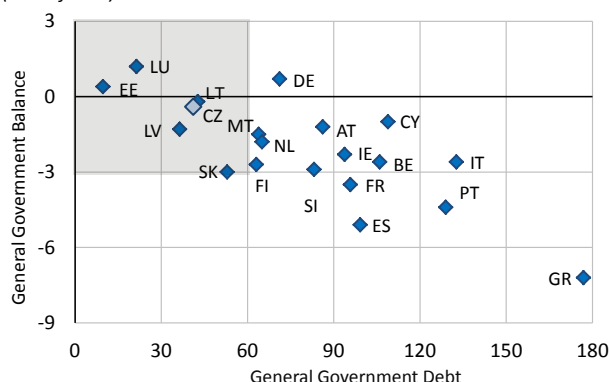
Contrary to the euro area founders' original expectations, the euro area countries have seen no major economic convergence, rise in economic growth or harmonisation of business cycles. Developments in the euro area periphery countries have been mixed. The economic level of Ireland and the Baltic States (Estonia, Latvia and Lithuania) relative to the euro area has improved markedly since 2009, while that of the countries on the southern periphery (Greece, Cyprus, Spain, Italy and Portugal) has gone down since the onset of the crisis. Similarly, differences between the core euro area countries and the southern periphery are apparent on

the labour market. Although the conditions in this area are gradually improving, in Greece and Spain the unemployment rates are around 20%, and even around 45% in the 15–24 age category. In Germany, by contrast, the unemployment rate is just above 4%.

Differences in general government debt levels are also apparent. This indicator was above 100% of GDP in five euro area countries in 2015 (Greece, Italy, Portugal, Cyprus and Belgium). The weighted average of the general government debt-to-GDP ratio in the euro area peaked at 92.0% in 2014 and fell slightly to 90.7% in 2015. The euro area government deficit has been falling steadily since 2009, reaching 2.1% of GDP in 2015. In the same year, only five of the 19 euro area countries were compliant with both thresholds for the general government deficit and debt (see Chart 3.1). Only one of them was a founding member of the euro area.

**Chart 3.1: Fiscal positions in the euro area and the Czech Republic in 2015**

(in % of GDP)



Source: Eurostat (2016c).

The main obstacles to faster economic growth in the euro area are thus persisting systemic structural shortcomings, which have not been removed by consistent implementation of structural reforms; uncertainty about the future growth rate, which lags behind major world economies; and Brexit-related political uncertainty. Other adverse factors include geopolitical risks linked with tensions in the Middle East and North Africa, which have caused a serious migration crisis.

### 3.2 Institutional Developments in the EU and Newly Arising Obligations

A debate about deepening economic and monetary union is currently taking place on the basis of the Five Presidents' Report (EC, 2015). The report proposes deeper European integration in the economic, financial and fiscal areas and enhanced democratic accountability and legitimacy, especially in the euro area.

In the first stage of deepening EMU, measures were taken to strengthen the European semester, an independent advisory European Fiscal Board was established and a recommendation on the establishment of independent national productivity boards was issued for euro area countries. In spring 2017, the Commission intends to publish a white paper describing the second stage of deepening EMU in more detail.

Efforts continue to be directed at completing the **banking union**, where further steps will be necessary above all in the area of risk mitigation and risk sharing in the financial sector. The Single Resolution Mechanism (SRM) became fully operational on 1 January 2016. The SRM includes the Single Resolution Fund, in respect of the participating states agreed in December 2015 on temporary public funding as a last resort in the event of a lack of funds.

Also related to the banking union is the direct bank recapitalisation instrument contained in the European Stability Mechanism. The ESM has earmarked EUR 60 billion from its lending capacity to cover the needs of this instrument. Like the other forms of assistance under the ESM, this instrument can only be used where necessary to safeguard the financial stability of the euro area as a whole and its member states. At the same time, it is conditional on a previous bail-in and the exhaustion of all other resolution options.

In the Czech Republic, the political debate on possible participation in the banking union before euro adoption is based on the annually updated *Impact Study of Participation or Non-participation of the Czech Republic in the Banking Union* (Ministry of Finance, 2015b, 2016). In accordance with its conclusions and recommendation, **the government decided on 30 May 2016 not to join the banking union in the current situation.**

Under the **Single Resolution Mechanism**, the contributions collected by the participating states from banks in their territories are transferred to the Single Resolution Fund (SRF). The target level of funds in the SRF, which should be reached by the end of 2023 (with the option of an extension of up to four years), should correspond to 1% of the amount of insured deposits<sup>7</sup> of banks in the participating states. If the Czech Republic were to join the banking union, it would have to transfer the contri-

butions collected until then in the National Resolution Fund to the SRF. Taking into account the expected increase in the amount of deposits, the target level of the National Resolution Fund should be approximately CZK 26.6 billion. However, the amount of banks' contributions in the banking union will also depend on their risk profiles. The preliminary estimate of the amount to be transferred to the SRF for the Czech Republic is lower and lies within the range of CZK 8.7–20.9 billion.<sup>8</sup>

Given the total assets of the euro area banking sector, however, even the aggregate financial capacity of the SRF together with the instrument of direct recapitalisation of banks from the ESM would not necessarily be enough to solve any major problems in the banking sectors of the banking union countries. On the other hand, the bail-in tool should help significantly reduce the potential demand for funds from the ESM.

Any shortage of funds in the SRF during the transitional period will be bridged using individual (i.e. not mutualised) credit lines from the individual participating states. The maximum total amount of temporary funding has been set at EUR 55 billion. In the event of participation in the banking union, the Czech Republic's obligation should thus correspond to the difference between the amount of funds transferred to the SRF during the transitional period by institutions operating in the Czech Republic and the amount of funds already transferred to the SRF together with other available external sources of funding. Credit provided by a participating country will be repaid from extraordinary contributions collected from banks so that fiscal neutrality of the mechanism is maintained.

The estimated financial costs associated with the Czech Republic's hypothetical entry into the euro area are quantified in Appendix B.

<sup>7</sup> Insured deposits up to the compensation amount. In the case of euro area countries, the 1% target level would represent about EUR 55 billion.

<sup>8</sup> A reliable estimate of the actual amount cannot be made at present because not all the necessary data are available. The amount of the contributions will also depend on the number of non-euro area Member States participating in the banking union.

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# A Appendix – Maastricht Convergence Criteria

## Criterion on Price Stability

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### Treaty provisions

The first indent of Article 140(1) of the Treaty requires: "the achievement of a high degree of price stability; this will be apparent from a rate of inflation which is close to that of, at most, the three best performing Member States in terms of price stability".

Article 1 of Protocol No. 13 on the Convergence Criteria also stipulates that: "The criterion on price stability shall mean that a Member State has a price performance that is sustainable and an average rate of inflation, observed over a period of one year before the examination, that does not exceed by more than 1.5 percentage points that of, at most, the three best performing Member States in terms of price stability. Inflation shall be measured by means of the consumer price index on a comparable basis taking into account differences in national definitions."

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

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

The reference value of the price criterion is calculated as 1.5 percentage points plus the simple arithmetic average of the rate of inflation in the three countries with the lowest inflation rates, provided that this rate is compatible with price stability.

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

Both the Treaty and the Protocol in some areas leave scope for interpretation by the institutions that assess the fulfilment of the criteria in their Convergence Reports (the European Commission and ECB). Therefore, when assessing the fulfilment of the criteria one should also take into account the specific way in which these institutions implement the criterion. Previous practice shows that countries with low or negative inflation rates are not automatically excluded as reference countries. Only countries that record significant deviations in inflation from the other EU countries owing to extraordinary or specific factors are excluded.

## Criterion on the Government Financial Position

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### Treaty provisions

The second indent of Article 140(1) of the Treaty requires "the sustainability of the government financial position; this will be apparent from having achieved a government budgetary position without a deficit that is excessive as determined in accordance with Article 126(6) of the Treaty".

Article 2 of Protocol No. 13 on the Convergence Criteria stipulates that this criterion "shall mean that at the time of the examination the Member State is not the subject of a Council decision under Article 126(6) of this Treaty that an excessive deficit exists".

Article 126 of the Treaty sets out the excessive deficit procedure, which is specified in more detail in the Stability and Growth Pact. According to Article 126(3) of the Treaty, the European Commission shall prepare a report assessing whether an excessive deficit exists on the basis of the following two criteria if a Member State does not fulfil the requirements for budgetary discipline.

1. whether the ratio of the planned or actual government deficit to GDP exceeds a reference value (defined in Protocol No. 12 on the excessive deficit procedure as 3% of GDP), unless:
  - a. either the ratio has declined substantially and continuously and reached a level that comes close to the reference value;
  - b. or, alternatively, the excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value.
2. whether 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.

However, several other steps need to be taken between the European Commission's report and the start of the excessive deficit procedure. The excessive deficit procedure is opened by the EU Council, acting on a proposal from the European Commission. The EU Council also closes the procedure, acting on a recommendation from the Commission.

## Criterion on the Convergence of Interest Rates

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### Treaty provisions

The fourth indent of Article 140(1) of the Treaty requires: "the durability of convergence achieved by the Member State...and of its participation in the exchange-rate mechanism being reflected in the long-term interest-rate levels".

Article 4 of Protocol No. 13 on the Convergence Criteria specifies that: "The criterion on the convergence of interest rates...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 two percentage points that of, at most, the three best performing Member States in terms of price stability. Interest rates shall be measured on the basis of long-term government bonds or comparable securities, taking into account differences in national definitions."

### Implementation of the criterion on the convergence of interest rates

As in the case of the price stability criterion, the Treaty and the Protocol provide scope for a looser interpretation of the specific value of the criterion. It is within the competence of the assessing institutions to decide whether the calculation of the interest rate criterion will include all three countries used for the calculation of the price stability criterion or whether certain countries will be excluded from the calculation of the interest rate criterion.

Interest rates measured on the basis of long-term government bonds or comparable securities are regarded as long-term interest rates. These interest rate statistics are based on monthly average interest rates on long-term government bonds in per cent per annum. Bonds with residual maturities ranging from 8 to 12 years are classified as benchmark bonds (this range is fully in line with the conditions on the Czech government bond market and is based on the Czech government bond issue frequency). A combination of bonds whose average residual maturity is as close to 10 years as possible is then generated from this set.

## Criterion on Participation in the Exchange Rate Mechanism

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### Treaty provisions

The third indent of Article 140(1) of the Treaty requires: "the observance of the normal fluctuation margins provided for by the exchange-rate mechanism of the European Monetary System, for at least two years, without devaluing against the euro".

Article 3 of Protocol No. 13 on the Convergence Criteria stipulates that: "The criterion on participation in the exchange-rate mechanism of the European Monetary System referred to in the third indent of Article 140(1) of the 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 the euro on its own initiative for the same period."

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

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

First, the ECB and the EC assess whether the country has participated in ERM II "for at least the last two years before the examination", as stated in the Treaty.

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

The EMI Council's opinion of October 1994 stated that "the wider band has helped to achieve a sustainable degree of exchange rate stability in the ERM", that "the EMI Council considers it advisable to maintain the present arrangements", and that "member countries should continue to aim at avoiding significant exchange rate fluctuations

by gearing their policies to the achievement of price stability and the reduction of fiscal deficits, thereby contributing to the fulfilment of the requirements set out in Article 140(1) of the Treaty and the relevant protocol”.

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

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

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

## B Appendix – Estimated Financial Costs for the Czech Republic of Hypothetical Euro Area Entry

The table below lists the estimated direct financial costs in the hypothetical case of the Czech Republic entering the euro area, and the financial costs closely linked with entry, based on the current legal settings and a number of simplifying assumptions about economic factors. An exchange rate of CZK 27.0 to the euro is used for all currency conversions.

The table does not capture other facts that would have an impact on the Czech Republic's budget or, more broadly, on the method of implementing budgetary and fiscal policy in the event of euro area entry. Budgetary impacts would stem from any financial penalties that might be imposed on euro area countries under EU surveillance of members' budgetary policies or surveillance of macroeconomic imbalances.

The implementation of budgetary and fiscal policy in the Czech Republic would be affected, among other things, by Regulation (EU) No. 473/2013 of the European Parliament and of the Council, which deepens EU surveillance of euro area members' budgetary policies. Euro area countries could also de facto make euro adoption in the Czech Republic conditional on the completion of ratification of the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union. The aforementioned Regulation and Treaty require the introduction of national legal regulations or institutions that will support compliance with the EU rules on budgetary discipline (the Stability and Growth Pact). Moreover, the Treaty tightens these rules in some cases, and that could also affect the Czech Republic.

<b>Payment of the rest of the Czech Republic's share in the subscribed capital of the ECB</b>	<b>Unit</b>	<b>Cost</b>
– Following euro area entry, the CNB would have to pay up the outstanding amount of the subscribed capital of the ECB (Article 48 of the Protocol on the Statute of the European System of Central Banks and of the European Central Bank).	<i>EUR mil</i>	167.5
– Only a minimal percentage (3.75%) of the subscribed capital of the ECB has been paid up to date, as a contribution to the operational costs of the ECB (Decision ECB/2013/31).	<i>CZK bn</i>	4.5

<b>Obligations associated with the Czech Republic's participation in the European Stability Mechanism</b>	<b>Unit</b>	<b>Cost</b>
– The total obligation is CZK 437.4 billion, of which CZK 386.7 billion is a contingent liability payable in the event of full use of the ESM's lending capacity.	<i>EUR bn</i>	1.9*
– The Czech Republic would then have to pay up capital totalling CZK 50.7 billion within four years.	<i>CZK bn</i>	50.7*
– The Czech Republic may theoretically adopt the euro without becoming a contracting party to the ESM, but euro area members can de facto make their consent to euro adoption in the Czech Republic conditional on ESM entry.		

<b>Obligations associated with membership of the Single Resolution Mechanism</b>	<b>Unit</b>	<b>Cost</b>
– The Czech Republic is obliged to join the banking union no later than upon euro adoption.	<i>EUR bn</i>	up to 0.98**
– The intergovernmental Agreement on the transfer and mutualisation of contributions to the Single Resolution Fund requires that the contributions of banking institutions be transferred to the fund by the end of a transitional period.	<i>CZK bn</i>	up to 20.9**
– Euro area countries can make their consent to euro adoption in the Czech Republic conditional on the completion of ratification of this Agreement in the Czech Republic.		
– The provisions of the Agreement will start to apply to the Czech Republic upon euro area entry (or banking union entry, should the Czech Republic join the banking union before adopting the euro).***		

<b>Obligations associated with the Czech Republic's participation in the Single Supervisory Mechanism</b>	<b>Unit</b>	<b>Cost</b>
– They reflect the total annual fees paid by Czech banks to the European Central Bank for the conduct of supervision.	<i>EUR mil</i>	2.2
	<i>CZK mil</i>	59.5

Note: \* Paid-up capital represents CZK 50.7 billion of the Czech Republic's share in the subscribed capital of the ESM; the rest is contingent liabilities. The Czech Republic's share in the subscribed capital of the ESM does not take into account a temporary correction of the ESM capital subscription key, to which economically weaker ESM members are entitled (in the current situation, the Czech Republic would also be entitled to it).

\*\* In line with section 3, this is the upper limit and the amount transferred would probably be lower than stated here, i.e. between CZK 8.7 billion and CZK 20.9 billion.

\*\*\* In the event of accession to the banking union after 2023, the contributions in the National Resolution Fund would have to be transferred to the SRF as of the date of entry.

## C Appendix – Glossary

**Appreciation** means a strengthening of a currency's exchange rate against another currency (other currencies).

The **cyclically adjusted balance** of the general government sector is used to identify the fiscal policy stance, as it does not include revenues and expenditures generated by the position of the economy in the business cycle.

The **euro area** (EA) comprises the EU Member States that have adopted the euro under the Treaty. As of 1 January 1999, the euro area consisted of eleven countries – Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. Greece joined the euro area in 2001, followed by Slovenia in 2007, Cyprus and Malta in 2008, Slovakia in 2009, Estonia in 2011, Latvia in 2014 and Lithuania in 2015.

The **European Stability Mechanism** (ESM) is a financial assistance fund for EU Member States that use the euro as their currency. It was established in 2012 by an international treaty outside EU law, so it is an independent international financial institution. However, the ESM's operations are closely linked with EU law as well as EU and euro area institutions.

The **general government** sector is defined using internationally harmonised rules. In the Czech Republic, it consists of three main subsectors under ESA 2010 methodology: central government, local government and social security funds.

The **Harmonised Index of Consumer Prices** (HICP) is an index measuring the price level. It is constructed on the basis of regular monitoring of prices of selected goods and services, which have certain weights in the consumer basket. Its calculation in EU countries is governed by unified and legally binding procedures, which enables cross-country comparisons. It is therefore used to assess the criterion on price stability.

**Inflation** is growth in the general price level, i.e. internal depreciation of a currency. The price level is measured using price indices such as the Harmonised Index of Consumer Prices.

**Long-term interest rates** are measured on the basis of long-term government bonds or comparable securities. These interest rate statistics are based on monthly average interest rates on long-term government bonds in per cent per annum. Bonds with residual maturities ranging from 8 to 12 years are classified as benchmark bonds (this range is fully in line with the conditions on the Czech government bond market and is based on the Czech government bond issue frequency). A combination of bonds whose average residual maturity is as close to 10 years as possible is then generated from this set.

The **medium-term objective** (MTO) is expressed in terms of the structural balance and implies public finance sustainability in the country concerned. For the Czech Republic, it currently equates to a structural balance of -1% of GDP.

**One-off and other temporary operations** are measures on the revenue or expenditure side that have only a temporary effect

on the general government balance and often stem from events beyond the government's direct control.

**Ratings** are a standard international tool for assessing the creditworthiness of countries in order to evaluate their credibility. A rating tells foreign firms how risky it is to do business in the country and quantifies how likely it is that the country will be able to meet its obligations. It therefore reflects the quality of a country as a borrower and its economic ability to meet its obligations and repay both interest and principal in time and in full.

The **Single Resolution Fund** (SRF) is a fund financed by contributions from banks, collected by the participating countries. Upon its establishment, it will comprise national compartments, which will gradually increase their mutualisation, thereby weakening the link between the national origin of the SRF contributions and the home country of a bank in resolution. Lending between national compartments will be allowed. To prevent a shortage of funds in the SRF during a transitional period (until the end of 2023), the states of the banking union have agreed on temporary public funding in the form of individual (not mutualised) credit lines to the SRF. A permanent mechanism of financial backstops should be fully operational by the end of the transitional period.

The **Single Resolution Mechanism** (SRM) is a mechanism comprising a centralised board, which will prepare proposals for bank resolution procedures, and a fund for bank resolution in the banking union. Its objective is to ensure proper bank resolution with a minimal impact on public budgets, as the bank's shareholders and creditors, as well as a dedicated fund financed by banks themselves, will bear primary responsibility for covering any losses.

The **Single Supervisory Mechanism** (SSM) is a new system of banking supervision in the EU. It falls within the competence of the ECB and the national competent authorities of the participating countries.

The **Stability and Growth Pact** (SGP) is a binding framework for the coordination of national fiscal policies in the European Union. If an EU Member State has a general government deficit exceeding 3% of GDP, or does not reduce its debt exceeding 60% of GDP at a sufficient pace, an **excessive deficit procedure** is usually opened against it. This procedure is opened on the basis of a comprehensive assessment of the country's economic and budgetary situation. For example, if the excessive deficit (or debt) is only temporary, caused by adverse (cyclical) economic developments, an excessive deficit procedure may not be launched. The penalties imposed differ according to whether or not the country is a member of the euro area.

The **structural balance** is the difference between the cyclically adjusted balance and one-off and temporary operations (see above).

