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

2015

A joint document of the Ministry of Finance of the Czech Republic and the Czech National Bank approved by the Government of the Czech Republic at its meeting on 21 December 2015

CNB CZECH NATIONAL BANK

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

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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

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Abbreviations

AMR	Alert Mechanism Report
CNB	Czech National Bank
CZ	Czech Republic
Czech MoF	Ministry of Finance of the Czech Republic
CZK	Czech koruna
CZSO	Czech Statistical Office
EA, EA-19	euro area
EC	European Commission
ECB	European Central Bank
EMI	European Monetary Institute
EMS	European Monetary System
ERM II	Exchange Rate Mechanism II
ESM	European Stability Mechanism
EU, EU28	European Union (covering all 28 countries)
EUR	euro
GDP	gross domestic product
IMF	International Monetary Fund
IMF FSI	financial stability indicators used by the International Monetary Fund
MFA	Ministry of Foreign Affairs
MIP	Macroeconomic Imbalance Procedure
MTO	medium-term budgetary objective
OECD	Organisation for Economic Cooperation and Development
SRB	Single Resolution Board
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 or no entry can be made for reasons of logic.

Cut-off dates for data sources

Macroeconomic data sources pertain to 15 October 2015 and fiscal data to 30 November 2015.

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, have recently been integrating further. 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 and unforeseen 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 and economic growth[1].

The Czech Republic is very likely to be compliant with the **criterion on price stability** in 2015, thanks partly to the exceptionally low level of the criterion, reflecting continued deflation in some EU countries. According to the outlook for inflation, compliance with this criterion is ensured until 2018 with a margin of almost 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 1 pp for the deficit and 20 pp for debt) in the medium term. The public budget balance should meanwhile be on a path towards compliance with the medium-term objective (MTO), which is currently set at maximum of 1% of GDP for the general government structural deficit. The MTO is likely to 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 government plans to hit the MTO at its current level in 2018.

The Czech Republic is traditionally comfortably compliant with the **criterion on the convergence of interest rates** and, according to the outlook, is likely to remain so until 2018 (by a margin of at least 1 pp).

The Czech Republic is not 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.

Participation in ERM II is closely linked with compliance with fiscal targets. In the case of Member States participating in ERM II, the Council of the European Union and the European Commission examine whether

[1] The assessment is based on the Alert Mechanism Report under the Macroeconomic Imbalance Procedure. The Czech Republic was not subject to an in-depth review in 2014 (EC, 2014b).

the Member State is achieving an annual improvement in its structural balance of the recommended figure of 0.5% of GDP if it is not adhering to its MTO.[2]

When deciding on euro area entry, however, 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 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 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. The strong trade links with the euro area are also fostering alignment of the business cycle with the euro area. A favourable factor is long-term alignment of inflation, nominal interest rates and the exchange rate 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 recent years.** These include the real economic convergence of the Czech Republic to the euro area, which halted during the crisis but has resumed over the last two years. GDP per capita relative to the euro area average (converted using purchasing power parity) exceeded the pre-crisis level for the first time last year. However, there remains considerable room for long-term economic convergence. This group additionally includes the gradual stabilisation of financial markets and the renewal of their alignment with the euro area. It also includes fiscal policy, where the general government structural deficit decreased markedly in 2010–2013. Sustainable fulfilment of the medium-term budgetary objective is a necessary condition for fiscal policy to effectively play the role of stabilising factor in the event of the loss of independent monetary policy.

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 2008. The expected gradual renewal of the convergence trend would result in higher inflation after euro adoption by comparison with the core of the monetary union and hence in sustained low or even negative real interest rates. In times of economic growth, this could lead to increased risks of macro-financial imbalances.

The fourth group contains **areas which are showing long-term problems or misalignment and which, moreover, are not showing any significant improvement.** This group includes population ageing, which poses a risk to the long-term sustainability and stabilisation function of public finances. The functioning of the Czech labour market is comparable to that in other EU Member States. However, its weak points still include relatively high implicit labour taxation and relatively low labour mobility. Signs of greater flexibility can also be seen here, primarily in the form of growth in the number of employees working shorter hours, although this remains low compared to other EU countries. The flexibility of the Czech goods and services market has improved slightly, but is still being hampered by some administrative barriers, especially barriers to starting a business. 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 low share of services. Differences also remain in the financial sector and in the structure of financial assets. 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 CZK 51 billion capital deposit in the European Stability Mechanism payable within four years (with an additional contingent liability of almost CZK 390 billion) and a transfer of CZK 25 billion in contributions from banks registered in the Czech Republic to the Single Resolution Fund over eight years.

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 compared to previous years **but still cannot be assessed as sufficient for adopting the single currency**. Similarly, the situation in the euro area cannot be assessed as sufficiently stabilised. Economic alignment across economies is still low, some countries are facing continued deflation, and debt problems remain unresolved in a number of countries. All this is fostering slower growth in euro area countries than in the rest of the European Union.

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 that the Czech Republic should not attempt to enter ERM II during 2016.

[2] Council Regulation (EC) No 1466/97 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies, as amended.

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 participation in the exchange rate mechanism and a criterion on long-term interest rates. Their precise definitions are given in Appendix A.

1.1 Criterion on Price Stability

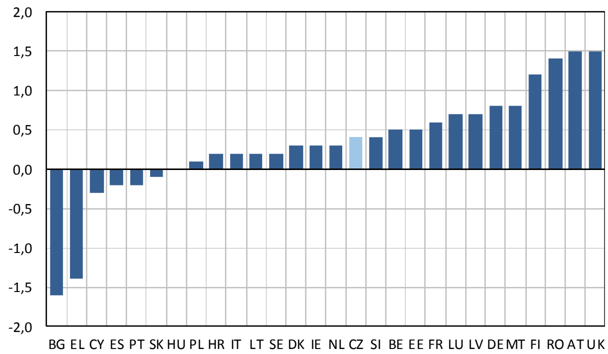
The price stability criterion assesses the rate of consumer inflation, which must not be more than 1.5 pp higher than the average of the three best performing countries in terms of price stability.

The Czech Republic has been compliant with this criterion since 2013. Its non-compliance in 2012 was due to an increase in indirect taxes and adverse supply shocks in the form of high prices of oil and food.

Owing to a deeply negative output gap, the domestic economy had an anti-inflationary effect in 2012–2014. The average inflation rate was only 0.4% in 2014, the second-lowest figure in the history of the independent Czech Republic. 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. Czech inflation in 2014 should also be seen in the broader context of very low inflation in the EU, where some countries were even in deflation. The Czech Republic was approximately in the middle of the set of EU countries (see Chart 1.1).

Chart 1.1: Average HICP inflation rates in 2014

(in %)



Source: Eurostat (2015a).

The inflation forecast for 2015 should be assessed in the same context, with the additional strong effect of a positive supply shock caused by a sharp decline in oil prices on global markets. This year, consumer prices should be more strongly affected by demand pressures reflecting rapid domestic economic growth and a related visible improvement in the labour market situation.[3] **However, the price stability criterion should be fulfilled in 2015**, despite a very low foreseen criterion value reflecting continued deflation in some EU countries.

Growing domestic demand and the unwinding of the effects of lower oil prices should foster an upswing in inflation towards the 2% inflation target in the years ahead, when inflation should also be affected by a further slightly inflationary effect of changes to indirect taxes. On the other hand, inflation in the Czech Republic in 2016–2018 will be dampened by the assumed exit from the CNB's exchange rate commitment and a subsequent rise in nominal interest rates. The level of the criterion should meanwhile increase, as a slight recovery in inflation is forecasted across the EU. Consequently, **the criterion should thus be also fulfilled in 2016–2018 by a sufficient margin**.

Fulfilment of the price stability criterion should be 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 fulfilment of the price stability criterion.

[3] According to the Ministry of Finance's analyses, the Czech economy probably switched to a positive output gap in 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 %)

	2012	2013	2014	2015	2016	2017	2018
Average for 3 EU countries with lowest inflation*	**1,6**	**0,3**	**-0,2**	**-0,5**	**0,9**	**1,2**	**1,4**
Reference value	3,1	1,8	1,3	1,0	2,4	2,7	2,9
Czech Republic	3,5	1,4	0,4	0,4	1,0	1,9	1,9

*Note: * More precisely, the three best performing member countries in terms of price stability (see Appendix A). The outlook for 2015–2018 was taken from the Convergence Programmes and Stability Programmes of individual Member States except Greece and Cyprus, which do not submit stability programmes as they are subject to economic adjustment programmes linked to financial assistance from the euro area and the IMF. 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. In the assessment of inflation for 2012 and 2013 Greece was excluded from the calculation of the criteria. In the assessment of inflation for 2014 we excluded Bulgaria (due to state interventions in electricity prices) and two countries with adjustment programmes, namely Greece and Cyprus. We thus adopted an approach similar to that used by the European Commission and the European Central Bank in their June 2013 and June 2014 Convergence Reports.*

Source: Eurostat (2015a), Convergence Programmes and Stability Programmes of EU Member States, Czech MoF forecast, October 2015. 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

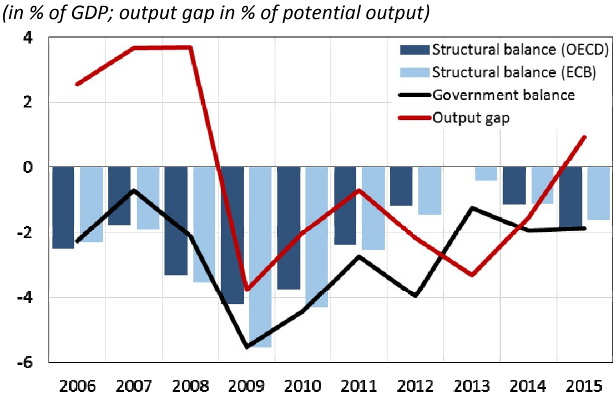
In 2010–2013, the government implemented a budgetary consolidation programme and the general government deficit fell gradually. The only exception was a widening of the deficit in 2012, which reflected strong one-off effects, particularly financial compensation relating to property settlement between the state and churches and religious societies. **The excessive deficit procedure against the Czech Republic**, which had been running since 2009, **was discontinued in June 2014**. The general government deficit increased to 1.9% of GDP in 2014 due to a one-off accrual shortfall in excise duty, a sizeable rise in investment and a change in the definition of general government (in particular the inclusion of the Deposit Insurance Fund).

The Ministry of Finance expects a general government deficit of 1.9% of GDP for 2015. On the revenue side, VAT revenues, excise duty on tobacco and income tax should rise compared to 2014. On the expenditure side, compensation of employees and spending on social benefits are likely to continue rising. Investment – both national and co-financed from the EU budget – will also go up sharply. A one-off transaction on the expenditure side in 2015 is the inclusion of CZK 9.9 billion in principal for the lease of JAS-39 Gripen aircraft.

According to current estimates by the **Czech Ministry of Finance, the general government balance should gradually improve to -0.5% of GDP in 2018**. 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, **it is also necessary to endeavour to meet the medium-term objective of achieving a structural general government deficit of no more than 1.0% of GDP**. Temporary achievement of this objective in 2013 completed the government's consolidation policy. The current government is pursuing a stimulus policy, which has boosted the economic recovery. Chart 1.2 shows the cyclical and 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.[4]

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 2015 data are a Czech MoF estimate.

Source: CZSO (2015), Czech MoF calculations.

Using the OECD method, the Ministry of Finance estimates the structural deficit at 1.9% of GDP in 2015, 1.6% of GDP in 2016 and 1.3% of GDP in 2017. The estimate for the structural deficit in 2018 is 1.1% of GDP.

Based on the ECB method, the Ministry of Finance estimates the structural deficit at 1.6% of GDP in 2015, 1.4% of GDP in 2016 and 1.1% of GDP in 2017. The estimate for the structural deficit in 2018 is 1.0% of GDP.

[4] The characteristics of the two methods are described in Appendix C.

The government's plans will thus result practically in fulfilment of the MTO at the end of 2018. The MTO for the structural deficit is likely to 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).

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 increased significantly in 2009–2012 from less than 30% of GDP to around 45% of GDP in 2013 owing to the global financial and economic crisis. This was a result of higher general government deficits and low nominal GDP growth. The marked increase in debt in 2012 was due to the creation of a deficit financing and debt refinancing reserve, whose gradual dissolution led to a decline in the debt ratio in 2014. Given the fiscal policy stance and economic growth, **the debt-to-GDP ratio should fall further, reaching around 40% of GDP in 2018**.

Total general government debt is still low relative to the EU average and the criterion will very probably be fulfilled in the years ahead. However, the margin of fulfilment of this criterion shrank following the outbreak of the crisis. The recession also showed that the Maastricht limit could be reached quickly in the event of a higher debt level and a sharper economic decline.

The adverse effects of population ageing pose the main risk to the long-term evolution of general government finance. Quite significant measures have been taken in area of public pensions (parametric changes to the current pay-as-you-go system). However, risks also stem from other areas of long-term expenditure, such as the configuration and functioning of the health and long-term care systems.

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

	2012	2013	2014	2015	2016	2017	2018
Reference value	-3,0	-3,0	-3,0	-3,0	-3,0	-3,0	-3,0
Czech Republic	-4,0	-1,3	-1,9	-1,9	-1,2	-0,8	-0,5

Source: CZSO (2015) and Czech MoF (2015b).

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

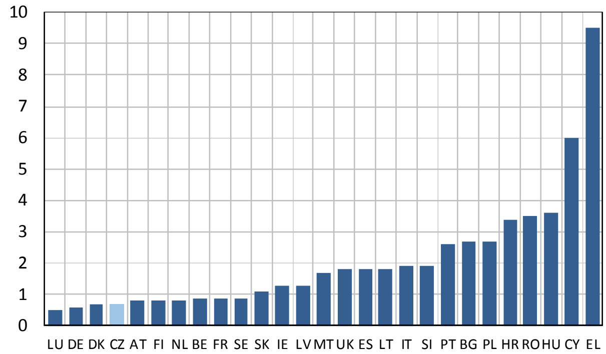
	2012	2013	2014	2015	2016	2017	2018
Reference value	60,0	60,0	60,0	60,0	60,0	60,0	60,0
Czech Republic	44,7	45,2	42,7	40,9	40,9	40,7	40,1

Source: CZSO (2015) and Czech MoF (2015b).

1.3 Criterion on the Convergence of Interest Rates

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

Chart 1.3: Long-term interest rates
(August 2015; average for the last 12 months; in %)



Note: Data are not available for Estonia; the data for Lithuania are for June 2015.
Source: Eurostat (2015b).

Annual average long-term interest rates in the Czech Republic for convergence purposes (ten-year government bond yields) dropped sharply in 2012–2015 and are currently below 1%. **The Czech Republic 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 high sovereign rating and in smooth subscription of government bonds, which is fostering low bond yields. Based on developments to date and on the construction of this criterion, it can be said that the **Czech Republic should have no problems fulfilling this criterion in the future.** However, 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.

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

	2012	2013	2014	2015	2016	2017	2018
Average for 3 EU countries with lowest inflation*	**3,1**	**4,4**	**1,8**	**1,6**	**1,0**	**1,3**	**1,3**
Reference value	5,1	6,4	3,8	3,6	3,0	3,3	3,3
Czech Republic	2,8	2,1	1,6	0,7	1,2	1,5	1,8

*Note: * More precisely, the three best performing countries in terms of price stability (see Appendix A), for which the outlook for long-term interest rates in 2015–2018 was taken from their 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 (2015b), Convergence Programmes and Stability Programmes of EU Member States, Czech MoF calculations.

1.4 Criterion on Participation in the Exchange Rate Mechanism

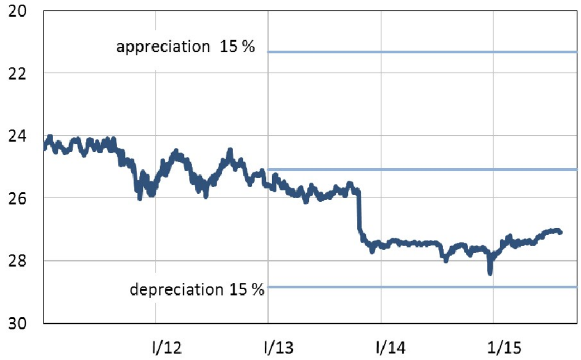
The admission of an EU Member State into the euro area is conditional on a successful, at least two-year stay of the national currency in ERM II. The exchange rate is expected to move within the fluctuation band of ±15% without devaluation of the central rate and excessive pressures on the exchange rate. **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 2013 Q1, i.e. the quarter preceding hypothetical ERM II entry at the start of 2013 Q2, which would have allowed euro adoption on 1 January 2016.[5] 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 did not leave the band of ±15% around the hypothetical central parity in the period under review** despite the fact that the CNB decided in November 2013 to start using the exchange rate as an additional monetary policy instrument because of the need to further ease the monetary conditions after the lower bound on interest rates had been reached. The koruna weakened sharply to close to CZK 27 to the euro on the day the exchange rate commitment was announced. The exchange rate then stabilised for some time at close to CZK 27.5 to the euro without further foreign exchange interventions.[6]

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 Q3 using further interventions. The foreign exchange commitment will apply until conditions are created for sustainable fulfilment of the inflation target at 2%.[7] **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 prices and other nominal variables. Any 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 2013 Q1. Data up to 30 September 2015.
Source: CNB (2015a), Czech MoF calculations.

[5] The hypothetical adoption of the euro in 2016 would have been preceded by an assessment of all the convergence criteria in 2015 Q2.

[6] 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.

[7] The Bank Board has stated repeatedly at its monetary policy meetings this year that the CNB will not discontinue the use of the exchange rate as a monetary policy instrument before the second half of 2016. Current developments suggest that, in addition to other factors, the weakening of the exchange rate averted the threat of deflation and fostered a switch of the economy to growth and hence a return to the long-term convergence path. Inflation nonetheless remains well below the CNB's 2% inflation target. Despite an expected increase, it will remain below the target for the whole of next year. According to the CNB forecast, sustainable fulfilment of the target, which is a condition for a return to conventional monetary policy, will not occur until early 2017. A need to maintain significantly expansionary monetary conditions therefore persists.

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

This part **summarises the results of a set of analyses directed at assessing the Czech economy's alignment** with the euro area[8].

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 has demonstrated the usefulness of having effective adjustment mechanisms, including one's own currency and independent monetary policy, for absorbing the impacts of economic shocks and stabilising the economy. The costs and benefits stemming from euro adoption will be affected by the characteristics and situation in both the Czech economy and the euro area economy. These factors will influence whether adoption of the euro by the Czech Republic will lead to an increase in the country's economic stability and performance.

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

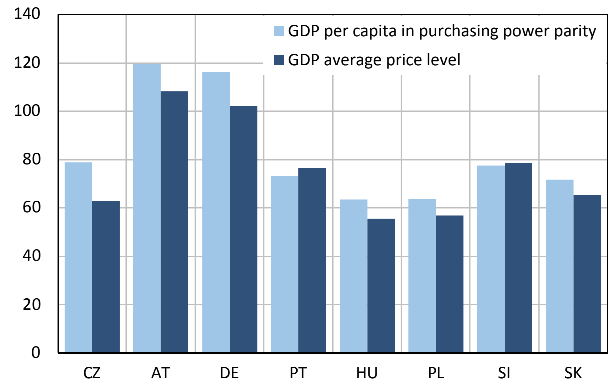
2.1 Cyclical and Structural Alignment

Greater 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. A higher level of such convergence fosters greater similarity of long-run equilibrium development and can also foster a lower likelihood of misalignment in the shorter run. A higher degree of convergence in the economic level prior to ERM II entry and prior to euro adoption should further increase the relative price level, which will reduce the potential future pressures for growth of the price level and equilibrium appreciation of the real exchange rate after joining the euro area. The Czech economy had been gradually converging towards the euro area in real terms before the financial and subsequently economic crisis broke out in 2008. However, this trend halted in 2009 and has only renewed in the last two years. In 2014, the relative economic level of the Czech Republic reached almost 79% of the euro area average, visibly exceeding the 2007 pre-crisis figure for the first time.

Chart 2.1: Real economic convergence of selected countries towards the euro area in 2014

(EA-19 = 100)



Source: Eurostat (2015c), CNB calculations.

The price level in the Czech Republic relative to the euro area is also slightly higher compared to 2007 (in 2014 it stood at 63%); however, it has decreased in relative terms from the historical high reached in 2008, correcting the excessive appreciation of the koruna

[8] These analyses are presented in detail in a document entitled *Analyses of the Czech Republic's Current Economic Alignment with the Euro Area in 2015*, 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").

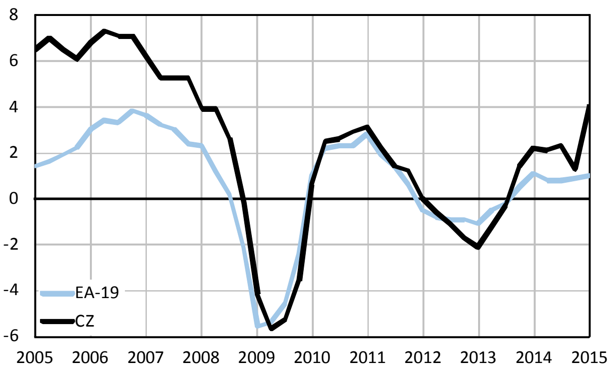
recorded in the pre-crisis period and then in 2013–2014 reflecting the weakening of the koruna due to the CNB's use of the exchange rate as an instrument for further easing monetary policy.

The wage level in the Czech Republic in 2014 was just under 40% of the average euro area level when converted using the exchange rate and just under 60% when converted using purchasing power parity. According to the analyses, gradual equilibrium real appreciation of the koruna against the euro can be expected over the next five years provided that real GDP convergence continues. Continuing real appreciation of the exchange rate following euro area entry would mean a positive inflation differential vis-à-vis the euro area and a related rise in inflation, which would also result in low or even negative real interest rates.

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 above-average degree of alignment of the Czech Republic with the euro area in terms of overall economic activity, as well as exports and, to a lesser extent, industrial production. These variables show relatively high levels even when adjusted for the strong common external shock in the form of the global financial and economic crisis.

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

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



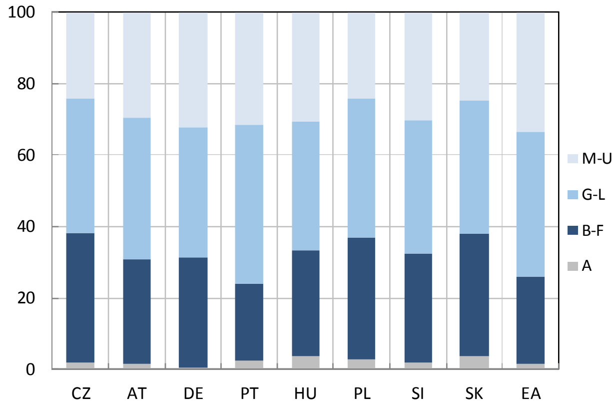
Source: Eurostat (2015f), CNB calculations.

Correlation analysis of the **cyclical component of unemployment**, defined as the difference between the actual unemployment rate and its estimated equilibrium level, offers another possible view of the economy's alignment with the euro area. Significant deviations in the cycle and the size of unemployment gaps could lead to suboptimal monetary policy in the single currency area. The alignment of the Czech Republic's unemployment rate gap with the overall gap in the euro area can be assessed as relatively high.

Similarity of the **structure of economic activity** with the euro area should reduce the risk of asymmetric economic shocks. The persisting relatively high share of industry and the lower share of services in the Czech economy compared to the euro area may mean a higher risk of asymmetric shocks, to which the potential single monetary policy will not be able to respond in full. In addition, the differences in the structure of the Czech economy vis-à-vis the euro area economy are continuing to widen slightly, so structural misalignment may become a risk as regards adopting the single currency.

Chart 2.3: Shares of economic sectors in GDP in 2014

(in %)



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

Source: Eurostat (2015g), CNB calculations.

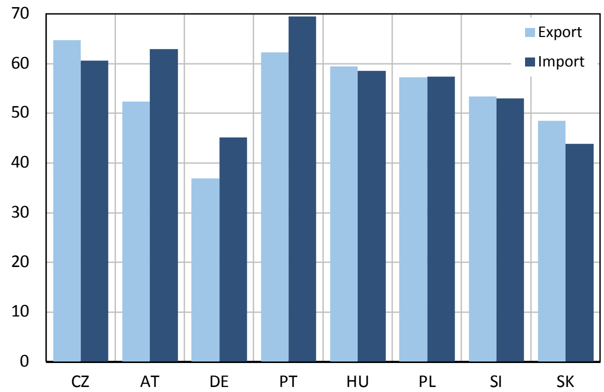
Fast convergence of **nominal interest rates** in connection with joining the euro area acted as an asymmetric shock in some economies in the past, generating macroeconomic imbalances and risks to financial stability. For a country planning to enter the monetary union, earlier gradual interest rate convergence is therefore an advantage. The difference between Czech and euro area market interest rates has long been very small. Unlike in Hungary and Poland, the Czech Republic did not record significant growth in the interest rate differential vis-à-vis the euro area in 2009 and 2012. The level of Czech nominal interest rates has therefore long been close to rates in stable euro area countries, hence there is no risk of euro adoption leading to a rapid fall in 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. Turning to the volatility of the exchange rate against the euro, a one-off increase in the historical volatility was seen after the CNB adopted its exchange rate commitment in late 2013. In the following two years, the historical volatility fell to its lowest level in the entire period under review. In the case of the Czech Republic, the volatility of the exchange rate against the euro has been the lowest among all the new EU Member States under comparison over the past ten years, even during the global financial and European debt crisis.

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 65% of Czech exports and the source of 61% of Czech imports. In the case of exports, this is the highest level among the countries under comparison; in the case of imports, only Portugal and Austria have higher levels. 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. into the euro area) in the Czech Republic are the highest among the new Member States, but lower than in the old EU Member States.

Chart 2.4: Shares of exports to the euro area and shares of imports from the euro area in 2015 H1

(in % of total exports and imports)



Source: Eurostat (2015f), IMF, CNB calculations.

The **financial sector** in the Czech Republic is still significantly smaller than that in the euro area. Moreover, the more than three-year-long convergence in the degree of financial intermediation in the Czech Republic to the euro area levels halted in 2014. The depth of financial intermediation, as measured by the ratio of financial institutions' assets to GDP, is less than one-third of the value for 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 indebtedness of the Czech private sector compared to the euro area. Nevertheless, gradual deleveraging of the private sector as a percentage of GDP is taking place in the euro area (from 166% of GDP in 2011 to 145% of GDP in 2014), while the debt ratio is increasing slightly in the Czech Republic (from 58% of GDP to 60% 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. Compared to advanced euro area countries, shares and other equity have a higher weight in the net debtor position of Czech corporations. This is due to the fact that foreign ownership is common. By contrast, the share of loans is lower. Corporations in the Czech Republic have the highest levels of highly liquid assets relative to the other countries under comparison. The ratio of liabilities in the form of securities to GDP is almost comparable with that in the euro area due to higher issuance of securities, corporate bonds in particular. The net debtor position of Czech corporations fell between 2013 and 2015. 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; in particular, the debt ratio is half that in the euro area, and there is an inverse ratio of the liquid to the investment component of households' assets.

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, and more than half of it is taking place within one month. The global financial crisis led to a temporary weakening, or slowdown, of the transmission of monetary policy interest rates in the Czech economy as a result of an increase in client risk premia. This, however, is a traditional sign of cyclicality associated with a tightening of credit conditions. The spread between client interest rates on corporate loans and short-term market rates in the Czech Republic is lower than that in the euro area. The average for the euro area as a whole in this regard is affected by the countries on its southern periphery, where interest rates are substantially higher than in the core countries. The differences in client interest rates across countries represent one of the main challenges to ensuring that the single monetary policy has a symmetric effect. The structure of interest rate fixations on new loans to non-financial corporations is similar to that in the euro area. The same basically goes for mortgage loans, although in the Czech Republic they are dominated by loans with fixations of up to five years, while in the euro area longer fixations are more common.

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 long been around the average among the countries under comparison. 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.

The analysis of **alignment of financial markets** (the money, foreign exchange, bond and stock markets) with the euro area reveals that, as in the previous period, synchronisation in the individual segments of the Czech financial market has long been mostly high and comparable with the euro area countries. A natural exception is still the money market, which was already showing a lower degree and speed of integration in the pre-crisis period. In 2009, situation in the Czech financial markets started to improve and then returned gradually to the pre-crisis degree of alignment with the euro area on all the markets under review. However, this trend continues to be affected by active central bank policy-making focused on mitigating the impacts of the crisis, including unconventional measures.

The degree of **euroisation** in the Czech Republic has long been low and remains the lowest in the Central European region, although it has been gradually rising in the recent period. The low level of euroisation is due to economic agents' high trust in the domestic currency amid sustained low and stable inflation and low nominal interest rates. The use of foreign currency is concentrated primarily in the sector of corporations involved in foreign trade and in the commercial property, insurance and financial intermediation sectors. Foreign currency loans have long been used by corporations as a form of natural hedging against exchange rate risk. Unlike in the other countries in the region, Czech households' demand for foreign currency deposits and loans is negligible.

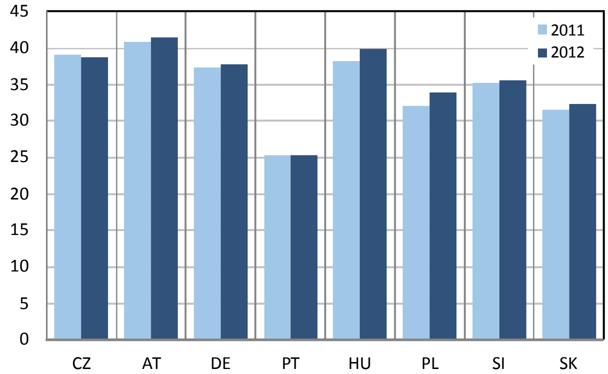
2.2 Adjustment Mechanisms

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 government budget deficit is to zero and the lower is the accumulated government finance 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 and other measures were adopted, and is currently also countercyclical in 2014–2015. 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. In addition, the fall of the economy into recession made the government shift its originally declared intention to comply with the medium-term budgetary objective in 2015 to 2018. Meeting the medium-term budgetary objective 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 structural component of the government sector deficit is expected to decrease slowly in the years ahead, following its current temporary increase. The Czech Republic's total general government debt is lower than that of many EU countries. However, the high and steadily rising share of mandatory expenditures poses a risk to public finance sustainability. Nevertheless, according to the government's draft state budget, mandatory expenditures are expected to decline moderately in 2016. Coping with population ageing by reforming the pension and health systems will also be of key importance for sustainability. Although compliance with the fiscal convergence criteria can thus be expected in the years ahead and the preparedness to enter the euro area has improved in this respect, the functioning of fiscal adjustment mechanisms remains a 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 functioning of the Czech labour market is comparable to that in other EU Member States. However, its weak points still include relatively high implicit labour taxation and relatively low labour mobility.

Chart 2.5: Implicit labour taxation rates

(in %)

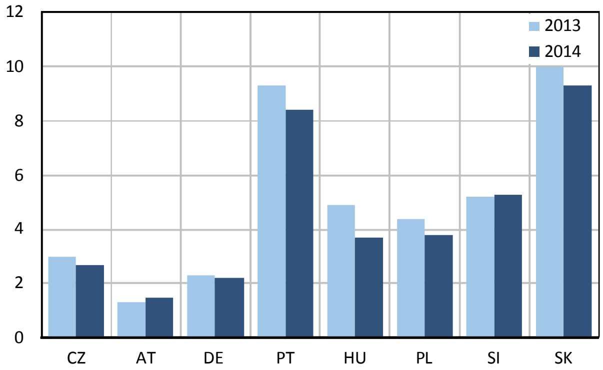


Source: Eurostat (2014h).

Since 2014, the economic recovery has resulted in a decline in the total unemployment rate, which is one of the lowest among the countries under comparison, and in a reduction in the number of unemployed persons amid an increase in vacancies. This indicates that developments on the labour market are mostly cyclical in nature and its flexibility is not likely to have changed.

Chart 2.6: Long-term unemployment rates

(in %)



Source: Eurostat (2015i).

The share of foreign nationals in the population more than doubled compared to the period before and shortly after accession to the EU, but has been flat at substantially lower levels than those typical of the advanced euro area countries in recent years. The Czech Republic still has large differences in unemployment across regions, despite the fact that they have gradually shrunk. On the other hand, the labour market is showing signs of greater flexibility, primarily in the form of growth in the number of employees working shorter hours. This has been particularly apparent in the economic recession phase in recent years. The rate of economic activity among the working age population has also gone up.

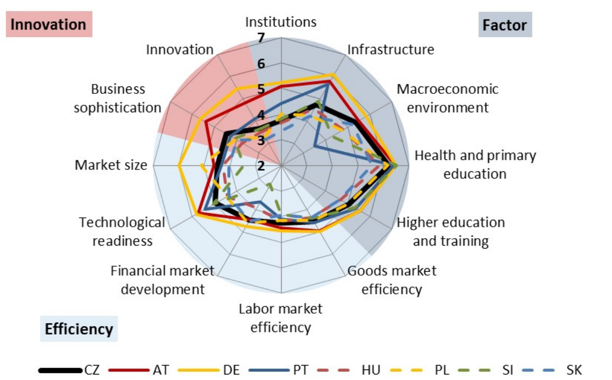
The **institutional rules on the labour market** have a strong effect on its flexibility. The ratio of the minimum wage to the average wage was falling until mid-2013, when the minimum wage was increased. Since then it has been rising steadily, and the current government plans to gradually raise it further. A high minimum wage can have an adverse effect mainly on low-skilled jobs, where it can greatly reduce wage flexibility and increase long-term unemployment. Overall labour taxation in the Czech Republic is relatively high, and has increased slightly further in the last year. The implicit taxation rate, expressing the average effective tax burden, is the third highest among the countries under comparison. The incentives to work arising from the configuration of taxes and 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 long-term unemployed families with children. Protection of regular employment is still relatively high, while protection of temporary jobs is relatively low.

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. The Czech Republic is around the average among the countries under comparison in terms of the strength of the correlation between output and unemployment and the correlation between output and wages. However, these correlations are weaker than in the euro area as a whole. In recent years, however, the Czech Republic has seen labour market adjustment through the aforementioned use of shorter working hours, and a decline in real wages was also recorded in 2012–2013.

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 barriers (barriers to starting a business in particular) than those in the other countries under comparison. The Czech Republic's ranking as regards barriers to growth and competitiveness has been relatively unchanged since 2006. Its score for factors affecting economic growth has been improving, while quality of institutions is a weakness. Although the Czech corporate tax rate, as measured by the statutory tax rate, is one of the lowest among the countries monitored, the overall tax burden as measured by implicit taxation of corporations in the Czech Republic is one of the highest.

Chart 2.7: Barriers to growth and competitiveness (GCI)

(scores for main pillars of the index; 2015–2016)

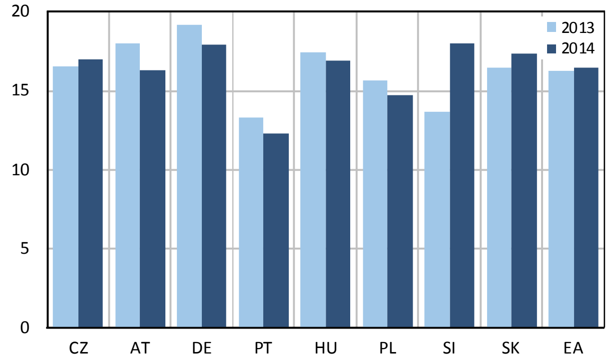


Note: The Global Competitiveness Index (GCI) evaluates countries' competitiveness by means of scores in 12 pillars grouped into three categories (factors, innovation and efficiency). The index takes values in the range of 1–7, with a higher index value meaning higher competitiveness.
Source: World Economic Forum (2015).

Stability and effectiveness of the **banking sector** is a necessary condition for the sector to be able 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. The resilience of the Czech banking sector to adverse shocks is high by international comparison, and has further increased over the last year. The domestic banking sector is therefore not a source of shocks and should be able to absorb fluctuations emanating from the domestic economy or from abroad. The link of domestic banks to the euro area banking sector is due mainly to the foreign ownership structure of the domestic banking sector, which may pose a risk upon the Czech Republic's potential entry into the banking union due to the transfer of many banking supervision competences.

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 (2015).

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

The situation in the euro area[9] **has stabilised somewhat recently.** This stabilisation is being aided by continued modest growth in economic activity (although there are large differences in GDP growth rates across euro area countries), fiscal consolidation, a stricter regulatory framework and new adjustment mechanisms, which, however, increase the financial obligations associated with future euro adoption. Still, as the example of Greece shows, the structural problems of the euro area are far from resolved. A further strengthening of the legislative framework towards tighter coordination of economic policies and a greater emphasis on sustainable fiscal and economic policies in euro area member countries is therefore currently being considered.

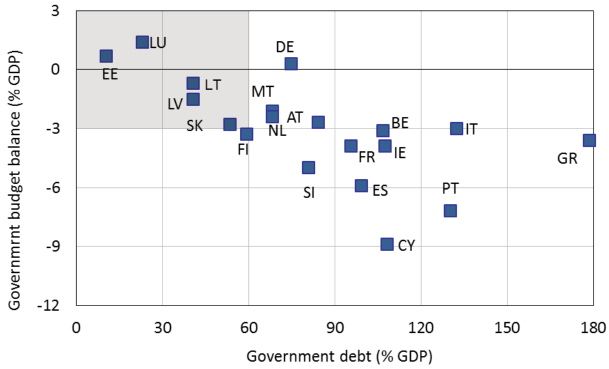
Economic alignment of euro area countries is a basic prerequisite for the EMU to function smoothly. **Persisting differences in the economic level are reducing the effectiveness of the single monetary policy**, although some external and internal imbalances have narrowed owing to the crisis and the stricter regulatory framework. Uncertainty about Greece's stay in the euro area going forward decreased after agreement was reached in August 2015 on a third bailout programme for the country (conditional on the implementation of economic reforms).

Financial aid should flow into Greece from the **European Stability Mechanism** (ESM), to which the Czech Republic will have to pay around CZK 51 billion in capital within four years after euro adoption, with an additional contingent liability of almost CZK 390 billion (see Appendix B).

Contrary to 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 economically weaker euro area countries have been mixed. The economic level of the Baltic States (Estonia, Lithuania and Latvia) has improved relative to the euro area since 2009, while that of the countries on the southern periphery (Italy, Portugal, Greece and Spain) has gone down since the onset of the crisis. **Particularly large differences between the core and periphery countries are apparent on the labour market**, although conditions in this area have been generally improving since the crisis began to ease. Germany and Austria are maintaining unemployment rates of around 5%, while unemployment in Greece and Spain is nearing 25% and is even running at around 50% in the 15–24 age group.

Differences in general government debt levels are also apparent. This indicator exceeded 100% of GDP in six euro area countries in 2014 (Belgium, Italy, Ireland, Cyprus, Portugal and Greece). The average general government debt ratio in the euro area peaked at 92.1% of GDP in 2014 and should start to come down steadily this year. The euro area government deficit dropped to 2.6% of GDP in 2014, falling below the 3% reference value for the first time since 2008. **Only five of the 19 euro area countries are currently compliant** with the deficit and debt thresholds (see Chart 3.1). The main obstacles to faster economic growth in the euro area are 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; geopolitical tensions in the Middle East and North Africa and a related strong inflow of immigrants; the evolution of commodity prices; and the vulnerability of financial markets, which are having to cope with low yields and increased volatility. The situation in the euro area thus still requires increased attention.

Chart 3.1: Euro area fiscal positions in 2014
(in % of GDP)



Source: Eurostat (2015d)

Developments in the institutional framework of the euro area were dominated by steps to complete the **banking union** in 2015. A Single Supervisory Mechanism (SSM) was launched in November 2014 and a Single Resolution Board (SRB) was established as part of the Single Resolution Mechanism (SRM) at the start of 2015. The Board's work in 2015 was focused mainly on preparing the ground for full operation as of 1 January 2016. A mechanism for providing temporary public funding for the Single Resolution Fund (SRF) was also discussed.

Also related to the banking union is the direct bank recapitalisation instrument contained in the European Stability Mechanism (ESM), introduced in December 2014. The ESM has earmarked EUR 60 billion from its lending capacity to cover the needs of this instrument.

[9] Lithuania joined the euro area on 1 January 2015.

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. This is accompanied by other strict conditions requiring, among other things, a previous bail-in and the exhaustion of all other resolution options. On the other hand, the "Five Presidents" report calls for greater flexibility for this form of assistance.

A political debate on possible participation in the banking union (the SSM/SRM) before euro adoption is going on in the Czech Republic. As part of that debate, an *Impact Study of Participation or Non-participation of the Czech Republic in the Banking Union* was prepared. **In line with the findings and recommendations of the study, the Czech government decided on 9 February 2015 not to join the banking union in the current situation** and to review the costs and benefits of participation in the banking union in one year's time on the basis of an updated impact study.[10] It should be noted that the Czech Republic will automatically join the SSM/SRM on entering the euro area.

Obligations relating to SSM membership: supervisory fees payable by banks

In 2015, the ECB started levying supervisory fees on banks in all countries participating in the SSM (only euro area countries in 2015). The total amount of the fees[11] is equal to the ECB's costs of supervision. In the event of the Czech Republic joining the SSM, the fees payable to the ECB by liable domestic credit institutions can be estimated at **EUR 2.2 million**. Therefore, the impact on the banks concerned should be minimal.

Obligations relating to SRM membership: transfer and mutualisation of SRF contributions

The contributions collected by the participating states from banks in their territories under the SRM[12] will be transferred to the SRF. These contributions will be made available – at first only in part, but later fully – for bank resolution in other participating states. However, the other participating states will only be able to use these contributions once the troubled bank has been bailed in and those states have used up a specified proportion of the contributions collected from banks in their territories. At the same time, it must be stressed that a participating state that makes the contributions collected in its territory available will reciprocally gain access to the contributions collected from banks in other participating states.

At the end of a transitional period, during which the funds will be mutualised, the total SRF funds should correspond to 1% of the amount of insured deposits[13] of banks in the participating states. The transitional period should start on 1 January 2016 and end on 1 January 2024 at the latest.

If the Czech Republic were to join the banking union, it would have to transfer the contributions collected in the national resolution fund until then 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 25 billion. However, the amount of banks' contributions in the banking union will depend on their risk profiles, among other things. Given the good condition and structure of the Czech banking sector, the amount to be transferred to the SRF can be expected to be significantly lower.[14]

Given the total assets of the euro area banking sector, however, even the aggregate financial capacity of the SRF together with the planned instrument of direct recapitalisation of banks from the ESM would not necessarily be enough to solve any major problems in the banking union's banking sector. Another safety mechanism financed from public funds (a "backstop") is therefore being sought. The bail-in tool should also help reduce the potential demand for funds from the SRF and the ESM.

The characteristics of the Czech banking sector indicate that it is more stable than the sectors of numerous other Member States. In the current conditions, this implies that the benefit of joining the banking union – i.e. the gain in the Czech sector's financial stability that might result from increased solidarity in resolving bank crises in the banking union – would be smaller by comparison with other countries.

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

[10] The issue of selected non-euro area EU Member States opting into the banking union before euro adoption was also examined in an IMF study published by the New Member States Policy Forum 2014, which arrived at similar conclusions.

[11] According to information provided by the ECB, supervision costs totalled EUR 326 million in 2014/2015 (ECB, 2015).

[12] The obligation of all EU Member States to collect similar contributions is stipulated in a directive of the European Parliament and of the Council on recovery and resolution in the financial sector (2014/59/EU).

[13] In the case of euro area countries, the 1% target level would represent about EUR 55 billion.

[14] 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

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 European Central Bank). 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

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 prepares a report if a Member State does not fulfil the requirements for fiscal discipline, in particular if:

1. the ratio of the planned or actual government deficit to GDP exceeds a reference value (defined in 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; or
   b. the excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value.
2. the ratio of government debt to GDP exceeds a reference value (defined in the Protocol on the Excessive Deficit Procedure as 60% of GDP), unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace. 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

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

Article 4 of Protocol No. 13 on the Convergence Criteria specifies that: "the criterion on the convergence of interest rates means that, observed over a period of one year before the examination, a Member State has had an average nominal long-term interest rate that does not exceed by more than two percentage points that of, at most, the three best performing Member States in terms of price stability. Interest rates shall be measured on the basis of long-term government bonds or comparable securities, taking into account differences in national definitions."

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

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

Payment of the rest of the Czech Republic's share in the subscribed capital of the ECB	**Unit**	**Cost**
Pursuant to Article 47 of the Protocol on the Statute of the European System of Central Banks and of the European Central Bank, non-euro area national central banks are required to pay up only a minimal percentage of their subscribed capital of the ECB as a contribution to the operational costs of the ECB. In accordance with Decision ECB/2013/31, this percentage is currently 3.75%. Following euro area entry, the CNB would have to pay up the rest of its subscribed capital under Article 48 of the Protocol.	*EUR mil* *CZK bn*	167.5 4.5

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

Obligations associated with membership of the Single Resolution Mechanism	**Unit**	**Cost**
As participation of euro area member countries in the banking union is a direct consequence of the already effective provisions of EU legislation, the Czech Republic's obligation to adopt the euro also implies an obligation to join the banking union no later than upon euro adoption. 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. Here again, 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).	*EUR bn* *CZK bn*	0.9** 24.6**

Obligations associated with the Czech Republic's participation in the Single Supervisory Mechanism	**Unit**	**Cost**
The costs reflect the total annual fees paid by Czech banks to the European Central Bank for the conduct of supervision.	*EUR mil* *CZK mil*	2.2 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, the amount transferred would probably be lower than stated here.*

C Appendix – Glossary

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

The **cyclically adjusted balance** 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 cyclically adjusted balance can be defined as the total balance minus the cyclical component. The cyclical component is calculated either as the product of the output gap, the elasticity of cyclically sensitive general government revenues and expenditures with respect to the output gap and the ratio of those items to GDP (OECD method), or directly relative to the relevant macroeconomic bases affecting revenues and expenditures and their specific cycles (ECB method).

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 a sustained increase 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 reflects a country's growth potential and the level and sustainability of its debt. Member States should converge towards their medium-term objectives over the medium term.

One-off and other temporary operations are measures that only have a temporary effect on general government budgets. Besides having a temporary effect on the fiscal position, these operations are often unrepeated and 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. The SRF should be secured using public funds (fiscal backstop).

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 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). The annual change in the structural balance characterises "fiscal effort".

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