**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 2020

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Ministry of Finance of the Czech Republic
Letenská 15, 118 10 Prague 1

Czech National Bank
Na Příkopě 28, 115 03 Prague 1

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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 entry into the exchange rate mechanism and subsequent adoption of the euro by the Czech Republic. It is available on the Ministry of Finance website at:

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Abbreviations

CNB .... Czech National Bank
CZ .... Czech Republic
CZK .... Czech koruna
CZSO .... Czech Statistical Office
EC .... European Commission
ECB .... European Central Bank
ERM II .... Exchange Rate Mechanism II
ESM .... European Stability Mechanism
EU .... European Union (covering all 27 countries)
EUR .... euro
GDP .... gross domestic product
MF CR.. Ministry of Finance of the Czech Republic
MTO .... medium-term objective

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, HR – Croatia, 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

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 15 September 2020, exchange rate data are to 14 October 2020, fiscal data to 30 September 2020, and notification tables of the various countries to 22 October 2020.

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

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, 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 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 European Union.

Setting the date for joining the euro area is within the competence of the Member State concerned and depends on its preparedness. Besides undoubted benefits, such as a reduction in transaction costs and the elimination of exchange rate risk, adopting the euro entails giving up independent monetary policy and the flexible exchange rate of the koruna as effective stabilising macroeconomic instruments. 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 with the monetary union, but also from the point of view of its ability to absorb asymmetric shocks using other mechanisms and adjust appropriately to them, in particular via fiscal policy and the labour market, after the loss of independent monetary policy.

Negotiations are also continuing on deepening economic integration. The negotiations are focused on strengthening economic and fiscal coordination and completing the banking union and the capital markets union. Despite the adoption of some minor proposals, little progress has been made in the last two years. A whole range of elements of the economic and monetary union therefore remained unfinished. New institutions and regulations have fundamentally changed the form of the euro area and hence also the content of the euro adoption obligation assumed by the Czech Republic on acceding to the EU. Their functioning, as well as the new institutional and financial obligations arising for countries adopting the single currency from measures taken in the context of deepening euro area integration, must therefore be properly assessed and considered in future decisions about the timing of monetary union entry.

The Czech Republic will not be compliant with the **criterion on price stability** in 2020, due to persisting domestic inflation pressures. The Czech Republic ranks among the EU Member States with the highest inflation in 2020. This mainly reflects the fading of the very tight labour market situation before the outbreak of the coronavirus pandemic and related rapid growth in wages and aggregate demand. According to the inflation forecast, it should be compliant with this criterion in 2021.

The Czech Republic was compliant with the **criterion on the government financial position** in both the budget balance and debt components until 2019. The deep decline in economic activity in this year due to the COVID-19 pandemic and fiscal support measures led to a sharp deterioration in the general government balance, which in all probability will record a deficit of more than 6% of GDP. This was reflected in a marked increase in general government debt. However, the debt level should remain well below the reference value. Compliance with the criterion on the government financial position in the years ahead will depend on the pace and strength of the recovery of the Czech economy and on appropriately calibrated consolidation strategy.

The Czech Republic has long been compliant with the **criterion on convergence of interest rates**. Owing to the unavailability of interest rate projections for the reference countries, the expected value of the criterion cannot be accurately determined for this year and the next. However, based on the current trends and available figures, it is reasonable to assume that the Czech Republic will also be compliant with this criterion in 2020.

The Czech Republic is formally non-compliant with the **criterion on participation in the exchange rate mechanism**, as it has not joined the mechanism.

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

The first group consists of **economic indicators that speak in favour of adopting the euro**. These have long included 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 integration also fosters a high degree of alignment between the Czech and euro area business cycles, although that has decreased somewhat in the past few years. Although the use of the euro in

the Czech economy is increasing further, it is concentrated almost exclusively in the trade relations of the Czech business sector. The Czech and euro area economies have converged further in the case of interest rates due to the macroeconomic impacts of the coronavirus pandemic. The Czech koruna remains aligned with the euro with respect to the US dollar, and inflation inertia is not a barrier to joining the euro area either. Several indicators are also suggesting preparedness for adopting the euro as regards the adjustment mechanisms of the Czech economy. A high and in recent years rising rate of economic activity and a low structural, or long-term, unemployment rate signal increasing labour market flexibility. In recent years, these variables were favourably affected by the economic boom. The stable domestic banking sector, which entered the recessionary phase of the financial cycle caused by the outbreak of the coronavirus pandemic in good shape with a robust capital and liquidity position, can also be assessed as positive.

The second group consists of **indicators with a neutral message**, which primarily include overall similarity of monetary policy transmission. The Czech Republic differs from the monetary union average in some financial indicators (depth of financial intermediation, private sector debt and the financial assets and liabilities structure of non-financial corporations and households), but this cannot be considered a disadvantage or a fundamental barrier to euro adoption. The indicator of the alignment of the Czech and euro financial cycles is also neutral. As stated above, labour market flexibility is improving in some respects. However, the configuration of the tax and benefit system may reduce the incentive for low-income groups in particular to actively seek employment. The Czech Republic's competitiveness score is also neutral, for example.

The third group consists of **indicators suggesting economic risks associated with potential euro adoption**. They primarily include a still unfinished process of real economic convergence of the Czech Republic towards the euro area and persisting lower structural similarity. The often procyclical nature of fiscal policy is a problem as regards the adjustment mechanisms of the Czech economy. The need to stabilise the pandemic-hit economy using fiscal policy tools has been reflected in a significant deterioration in the structural deficit this year. Czech public finance sustainability also remains an issue due to population ageing.

In addition to benefits, the adoption of the single currency also entails obligations, which must be taken into account when deciding on the timing of euro area entry. The total financial costs that will be associated with euro adoption in the future may evolve. The currently estimated financial obligations for the Czech economy, which were not known when the Czech Republic joined the European Union, mainly include a subscription of capital of the European Stability Mechanism and a transfer of contributions from banks registered in the Czech Republic to the Single Resolution Fund.

To sum up, the Czech Republic is only compliant with the criterion on the convergence of interest rates in 2020. In the context of the ongoing pandemic and the related global economic downturn, it is difficult to assess whether the Czech Republic's economic preparedness to adopt the euro has improved or deteriorated. The deep decline in GDP in the euro area corresponds to the synchronised contraction of the global economy, the scale of which is unprecedented in the post-World War II era. Moreover, unresolved debt and structural issues persist in a number of euro area countries.

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 government should not aim for the Czech Republic to join the exchange rate mechanism for now.

1 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. In 2020, the Czech Republic will probably only be compliant with the interest rate criterion. Due to the stabilising effect of public finances during the coronavirus crisis, it will not fulfil the criterion on the government financial position in the deficit component. It is very unlikely to meet the price stability criterion either, and 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 planned changeover date in the given country. Precise definitions of all the criteria are given in Appendix A; this section provides a detailed analysis of compliance with the criteria.

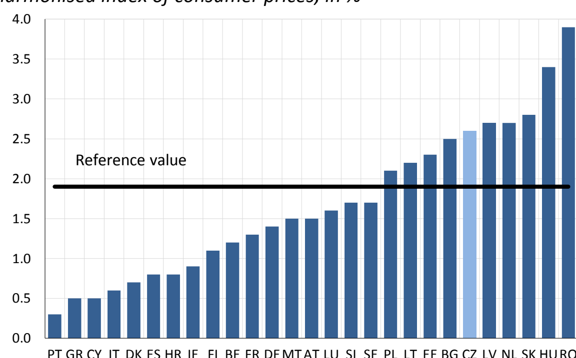
1.1 Criterion on Price Stability

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 European Union (EU) countries in terms of price stability.

The Czech Republic was compliant with this criterion in 2018, but not in 2019, partly because of its low reference value. In 2019, inflation in the Czech Republic was primarily affected by domestic factors reflecting long-running growth of the Czech economy and in particular a tight labour market situation amid a positive output gap. Those factors were reflected in faster wage growth, which stemmed from low unemployment and a high number of vacancies. The elevated inflation simultaneously reflected rising household consumption. The Czech Republic therefore ranked among the EU countries with higher inflation in 2019 (see Chart 1.1).

Chart 1.1: Average inflation rates in 2019

harmonised index of consumer prices; in %



Source: Eurostat (2020).

The aforementioned strong domestic inflation pressures are still fading this year due to the very tight labour market before the outbreak of the coronavirus pandemic. Moreover, the overall inflation pressures were amplified by the March depreciation of the koruna and by a surge of growth in corporate costs and a drop in labour productivity during the shutdowns of the economy in the spring. A deterioration in the functioning of international supply networks and global production (value) chains is having the same effect. The Czech Republic has ranked among the EU countries with the highest inflation so far in 2020. The reference value has declined, so the Czech Republic is **very unlikely to meet the criterion on price stability in 2020** (see Table 1.1).

The inflation pressures should ease next year as the decline in aggregate demand passes through to inflation with a lag. Lower inflation will also be fostered by renewed appreciation of the koruna, a decline in wage costs and a slowdown in growth of other corporate costs. Fulfilment of the price stability criterion has long been aided by the CNB's inflation target, which is set at 2% for the national consumer price index. At the same time, the level of the criterion should increase to last year's level, as inflation is expected to recover in countries with currently low inflation. The Czech Republic should therefore be **compliant with the criterion in 2021**.

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	2019	2020	2021
									Forecast	*Forecast*
Average for 3 EU countries with lowest inflation*	1.6	0.3	-0.2	-0.9	-0.8	0.6	0.7	0.4	-0.5	0.4
Reference value	3.1	1.8	1.3	0.6	0.7	2.1	2.2	1.9	1.0	1.9
Czech Republic	3.5	1.4	0.4	0.3	0.6	2.4	2.0	2.6	3.4	1.8

*Note: * More precisely, the three best performing member countries in terms of price stability (see Appendix A). The outlook for 2020 and 2021 was taken from the Convergence and Stability Programmes of individual Member States. Where data were not available in those programmes, data from the European Commission's July 2020 economic forecast were used instead (Bulgaria, France, Poland and Romania for 2021; Germany, Portugal and Spain for 2020 and 2021). Owing to the unavailability of average HICP inflation rates, average national CPI inflation rates were used for Austria and Croatia. Greece and Cyprus were excluded from the calculation of the criteria in the assessment of inflation for 2015, and Cyprus and Romania were excluded for 2016. The approach adopted was thus similar to that used by the EC and the ECB in their June 2016 Convergence Reports.*

Source: Eurostat (2020), Convergence Programmes and Stability Programmes of EU Member States. MF CR (2020a) calculations and forecasts.

1.2 Criterion on the Government Financial Position

The criterion on the government financial position is satisfied when both components of the fiscal criterion are fulfilled in a sustainable manner, i.e. a general government deficit of no more than 3% of GDP and general government debt of no more than 60% of GDP, unless the government debt ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace.

The Czech Republic recorded a general government surplus in 2016–2019. **The general government surplus was 0.3% of GDP in 2019**. On the revenue side, this was aided by growth in tax revenues and social security contributions. However, there was also growth in expenditure, especially compensation of employees, social transfers in kind, social benefits and investment.

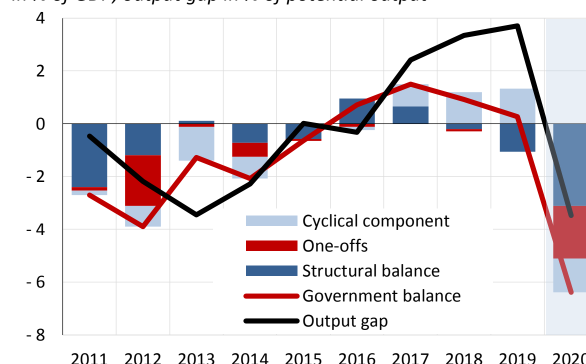
The Ministry of Finance (MF CR) **expects a general government deficit of 6.4% of GDP for 2020**. The sharp deterioration in government finances is due to a slump in economic activity in the current COVID-19 pandemic and related government fiscal stabilisation measures. On the revenue side, tax revenue is falling sharply, especially in the case of corporate income tax. Strong expenditure growth is being caused by a marked increase in current expenditure – subsidies, social benefits and social transfers in kind – and a rise in investment expenditure. In addition, capital transfers are increasing sharply.

From the perspective of fiscal policy and budgetary surveillance, attention is paid to the balance adjusted for the business cycle and one-off and other temporary measures (the "structural balance"). Chart 1.2 captures the structural components of the general government balance quantified by the method of the Organisation for Economic Co-operation and Development, which is also used in modified form by the European Commission (EC). Under this methodology, the Ministry of Finance expects a structural deficit of 3.1% of GDP in 2020.

The structural balance is compared with the MTO of each EU Member State. The MTO for the Czech Republic is currently a structural deficit of 0.75% of GDP. **After the Czech Republic joins the euro area, the MTO for the structural deficit may be tightened** to no more than **0.5% of GDP** (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 sustainability are low.

Chart 1.2: General government balance structure

in % of GDP; output gap in % of potential output



Note: On the revenue side, the one-off operations in 2020 consist of a waiver of premiums for certain employers and a waiver of advance payments for self-employed persons. On the expenditure side, they comprise compensation of wage costs, funds provided to tenants and accommodation facilities, extended and increased attendance allowance, purchases of medical supplies and a compensation bonus for persons listed in law.

See the Budgetary Documentation for the Draft Act on the State Budget of the Czech Republic for 2021.

Source: CZSO (2020). MF CR calculations and forecasts.

The sizeable deficit was reflected in an increase in general government debt this year. However, **the debt level** should remain below the reference debt level defined in the Maastricht convergence criteria.

The negative fiscal effects of **population ageing** pose the main risk to the long-term development of general government finance. In addition to demographics, this is due to the adoption of some measures in the public pension system in recent years which worsen the financial sustainability of the pay-as-you-go system. 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 (for details see MF CR, 2020b).

Table 1.2: General government balance

general government balance and debt; in % of GDP

	2012	2013	2014	2015	2016	2017	2018	2019	2020 *Forecast*	2021 *Forecast*
Reference value of government balance	-3,0	-3,0	-3,0	-3,0	-3,0	-3,0	-3,0	-3,0	-3,0	-3,0
Czech Republic	-3,9	-1,3	-2,1	-0,6	0,7	1,5	0,9	0,3	-6,4	-4,9
Reference value of general government debt	60,0	60,0	60,0	60,0	60,0	60,0	60,0	60,0	60,0	60,0
Czech Republic	44,2	44,4	41,9	39,7	36,6	34,2	32,1	30,2	39,4	42,7

Note: A precise definition of this criterion is given in Appendix A.

Source: CZSO (2020). Forecasts from the Budgetary Documentation for the Draft Act on the State Budget of the Czech Republic for 2021.

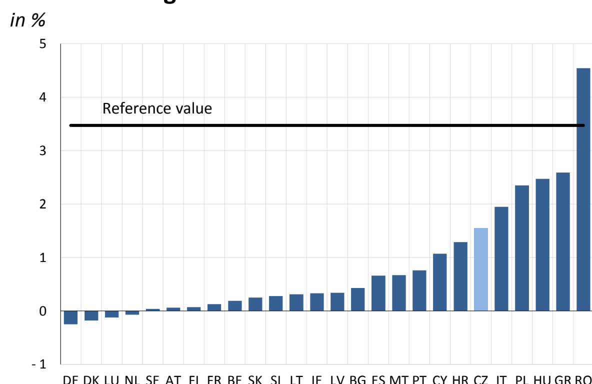
1.3 Criterion on the Convergence of Interest Rates

Under the criterion, convergence of interest rates is achieved if yields on bonds with an average residual maturity of 10 years do not exceed by more than 2 pp the average of the yields on bonds in the three best performing EU states in terms of price stability. Long-term interest rates on Czech government bonds stood at 2.0% in 2018 and 1.5% in 2019. **The criterion was thus fulfilled by considerable margin.**

Owing to the unavailability of interest rate projections for the reference countries in their Convergence Programmes and Stability Programmes, the expected value of the criterion cannot be accurately determined for 2020 and 2021. Based on the available values for 2020, during which Czech ten-year government bond yields declined to 1.0% in September and the average for the reference countries stood at 0.0%, this criterion is also expected to be fulfilled in 2020. Based on previous and expected developments, it is unlikely that the Czech Republic will not fulfil the interest rate convergence criterion in the medium term. However, this remains conditional on maintaining financial market confidence in Czech public finances combined with a high-quality Czech sovereign debt rating.

Chart 1.3: Long-term interest rates in 2019

in %



Note: Data are not available for Estonia.
Source: Eurostat (2020).

Table 1.3: Long-term interest rates on government bonds

yields on government bonds with residual maturity of 10 years; 12 month average; in %

	2012	2013	2014	2015	2016	2017	2018	2019	2020 *Forecast*	2021 *Forecast*
Average for 3 EU countries with lowest inflation*	3.1	4.4	1.8	1.8	2.1	1.3	1.9	1.5	.	.
Reference value	5.1	6.4	3.8	3.8	4.1	3.3	3.9	3.5	.	.
Czech Republic	2.8	2.1	1.6	0.6	0.4	1.0	2.0	1.5	1.1	0.9

*Note: * More precisely, the three best performing Member States in terms of price stability (see Appendix A). The outlook for long-term interest rates in 2020–2021 was not available for the reference countries in the Convergence Programmes and Stability Programmes.*
Source: Eurostat (2020). MF CR (2020a) calculations and forecasts.

1.4 Criterion on Participation in the Exchange Rate Mechanism

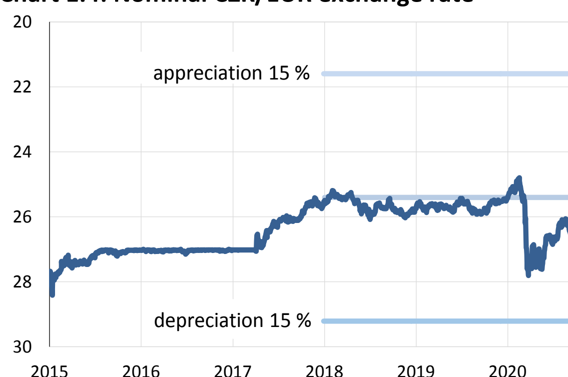
The admission of a state into the euro area is conditional on a successful, at least two-year stay of the national currency in the exchange rate mechanism (ERM II). The exchange rate is expected to move within the fluctuation band of ±15% without devaluation of the central rate and excessive pressures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

The central rate of the koruna against the euro, against which exchange rate fluctuations would be monitored, would be set before entry into the exchange rate mechanism. The length of stay in the mechanism is set 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, its August 2007 update and the December 2018 Assessment of the Fulfilment of the Maastricht Convergence Criteria and the Degree of Economic Alignment of the Czech Republic with the Euro Area imply that the Czech Republic should stay in ERM II for the minimum required period only.

For the purposes of this document, the hypothetical CZK/EUR central rate is set as the average exchange rate in 2018 Q1, i.e. the quarter preceding hypothetical ERM II entry at the start of 2018 Q2, which would have allowed euro adoption on 1 January 2021. Chart 1.4 shows that **the exchange rate fluctuated around the hypothetical central rate for most of the period under review**. The koruna depreciated sharply in response to the outbreak of the COVID-19 pandemic, the measures taken to contain it, and the environment of elevated global risks. Subsequently, as the global financial market stress diminished, it gradually strengthened close to the hypothetical central rate. Over the entire period, the exchange rate of the koruna fluctuated comfortably within the ±15% band.

According to the MF CR forecast (2020a), the koruna's appreciation trend will continue, driven mainly by fading global uncertainty and gradual economic convergence. Appreciation connected with real convergence should not be inconsistent with fulfilment of the exchange rate criterion. This conclusion is supported by the fact that the assessment of this criterion has historically been more lenient on the appreciation side and shifts of the central rate to a stronger level have been tolerated.

Chart 1.4: Nominal CZK/EUR exchange rate



Note: The hypothetical central rate is simulated by the average exchange rate for 2018 Q1. Data up to 14 October 2020.
Source: CNB (2020). MF CR calculations.

2 Assessment of the Degree of Economic Alignment

Adoption of the single European currency should further increase the benefits accruing to the Czech Republic from its intense involvement in international economic relations. It would lead to the elimination of exchange rate risk vis-à-vis the euro area and thus to a reduction in the costs of trade and investment. However, it would simultaneously create new risks arising from the loss of independent monetary policy and exchange rate flexibility. It is associated with new institutional commitments, including the obligation to join the banking union and the European Stability Mechanism.

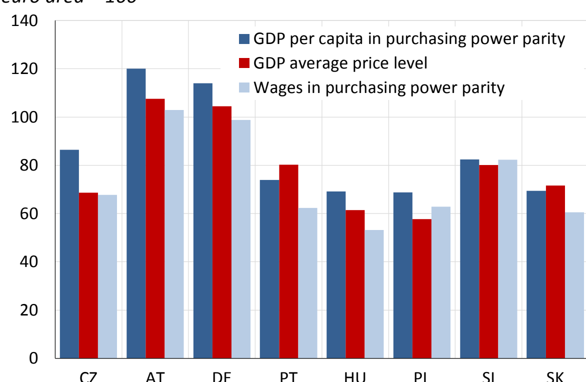
The key factors for the Czech economy are its alignment with the euro area and its ability to absorb potential asymmetric shocks after losing its own monetary policy.[1] The first part of this section therefore assesses the similarity of the long-term trends, medium-term development and structure of the Czech economy to the euro area, and in so doing indicates the size of the risk posed by the single euro area monetary policy for the Czech economy. The second part answers the question of to what extent the Czech economy is capable of absorbing the impacts of asymmetric shocks using its own adjustment mechanisms, namely autonomous fiscal policy, labour and product markets and the banking sector.

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.

Chart 2.1: Economic convergence of selected countries towards the euro area in 2019

euro area = 100



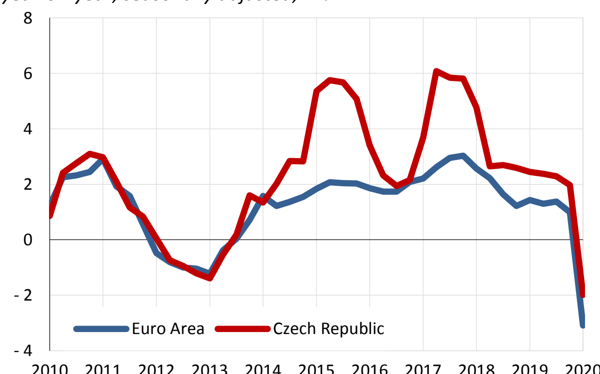
Source: Eurostat (2020), AMECO (2020). CNB calculations.

The process of catching up with the euro area in terms of economic, price and wage levels continued in the Czech Republic into 2019, but the **degree of real economic convergence** is still below the euro area average. Although the Czech Republic converged further towards the euro area average in all key indicators, the distance from that average is still significant for most indicators and remains a factor speaking against early euro adoption. If the euro were adopted, there could be sustained pressure on domestic inflation to rise above the CNB's current 2% target due to equilibrium appreciation of the real exchange rate and convergence of the wage level.[2]

Although the Czech Republic has long been showing high **correlation of economic activity with the euro area**, its cyclical alignment was lower in past years. This change was evident both in different GDP growth rates and a decline in the correlation of Czech export growth and economic growth in the euro area in the period before the coronavirus pandemic. However, the similar and identically timed economic response to the common external shock in the form of the outbreak of the global pandemic is bringing about a renewed increase in the measured cyclical alignment.

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

year-on-year; seasonally adjusted; in %



Source: Eurostat (2020).

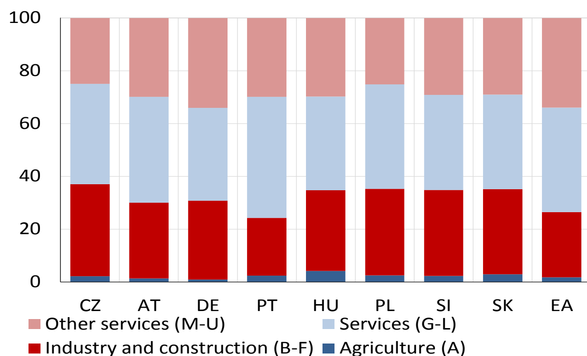
The persisting **differences in the structure of the Czech economy** compared with that of the euro area consist mainly in an above-average share of industry in Czech GDP. As regards euro adoption, the structural differences pose a risk of possible asymmetric shocks, to which the single monetary policy would not be able to respond in full. Any structural changes in the monitored economies caused by the current coronavirus crisis will probably not become visible for some time.

[1] The analyses in this section are presented in detail in CNB (2020).

[2] As shown, for example, by D'Adamo and Rovelli (2015), too early euro adoption in converging countries may foster excess inflation.

Chart 2.3: Sectoral structure of the economy in 2019

in % of gross value added

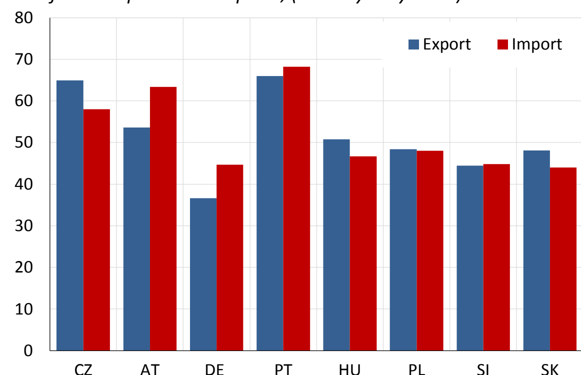


Note: The sectors are broken down by NACE classification: A: agriculture, forestry and fishing; B–F: industry and construction; G–L: services (trade, transport, ICT, financial intermediation, real estate services); M–U: other services.
Source: Eurostat (2020). CNB calculations.

The Czech Republic's strong **trade and ownership links** remain one of the strongest arguments for it joining the euro area. The elimination of exchange rate risk and transaction cost savings upon euro adoption would be greatly beneficial to the Czech corporate sector, which is intensively involved in the international division of labour. The relatively high intensity of international economic relations, accompanied, in the case of the Czech Republic, by high intensity of intra-industry trade, will in all probability lead to high synchronisation of economic shocks and cyclical alignment and hence lower costs associated with the loss of independent monetary policy. Alignment is also being supported by strong ownership links with the euro area.

Chart 2.4: Exports to the euro area and imports from the euro area

in % of total exports and imports, (January–July 2020)



Source: Eurostat (2020). CNB calculations.

The **alignment of the Czech and euro area financial cycles** increased in 2019, but the contributions of the individual components affecting the position in the financial cycle differ. The positions of the two economies in the financial cycle converged as the sharply falling financial cycle indicator for the Czech Republic approached the only slightly declining indicator for the euro area from above. In both cases, the decline was due to worse economic sentiment, as measured by consumer and business confidence. In the Czech Republic, the decline also reflected weakening credit growth and slightly slower property price growth, due, among other things, to monetary and macroprudential policy tightening in previous years. The difference between the maximum and minimum values of the financial cycle indicator across euro area countries narrowed in the second half of 2019, suggesting a slight decline in intra-euro area heterogeneity. The outbreak of the coronavirus crisis and the switch to the recessionary phase of the cycle can be expected to result in a gradual rise in synchronisation between these economies' financial cycles.

The **short-term interest rate differential** between the Czech Republic and the euro area narrowed in the first half of 2020 due to the CNB's response to the global economic shock. Like many other central banks, the CNB eased monetary policy in order to mitigate the impacts of the pandemic on price and financial stability and to support the Czech economy. With the ECB's deposit interest rate negative, the spread between the 3M PRIBOR and the 3M EURIBOR decreased below 1 pp. However, monetary conditions also eased further in the euro area, as the ECB significantly increased its asset purchases under the new Pandemic Emergency Purchase Programme. The difference between koruna and euro long-term interest rates also decreased slightly, so the risk of there being a large shock associated with interest rate convergence upon euro adoption remains relatively small.

The **Czech currency** reacts to changes in the environment outside the euro area similarly to the euro. The correlation between the koruna-dollar and euro-dollar exchange rates temporarily dropped significantly in March 2020 as the koruna's exchange rate was negatively affected by a large outflow of short-term capital along with the initial impacts of the pandemic. Later, however, the koruna reversed its fall, almost reaching last year's level. As with other Central European currencies, the volatility of the koruna-euro exchange rate increased sharply due to the financial market tensions. The results of analyses of financial market convergence suggest strong and asymmetric impacts of the coronavirus crisis. Although the alignment of the individual segments of the Czech financial market with the euro area has long been gradually increasing, that alignment started to decrease and volatility to fall in April 2020.

The **depth of financial intermediation** and the level of private sector debt in the Czech Republic are well below the euro area average. However, the latter does not represent a level to which the Czech financial sector should converge. An excessively large financial sector and overleveraged private sector might exacerbate the cyclical decline in the real economy of the countries in question due to a negative shock (such as the

coronavirus crisis), as was the case in some euro area countries during the global financial crisis.

The **structural similarity of the financing** of Czech and euro area firms has increased, while the structural similarity of the financial assets of Czech and euro area households has decreased further. The increase in similarity in the corporate sector was fostered again mainly by a decrease in the share of loans in total liabilities in the euro area amid no change of this share in the Czech Republic, and also by a decline in the share of other accounts payable of firms in the Czech Republic. The balance sheet similarity of Czech and euro area firms is significant. The decrease in the similarity of households' balance sheets is due mainly to a strong relative rise in the significance of units and shares in Czech households' total financial assets by comparison with euro area households amid persisting sizeable differences in holdings of other types of assets. The differences in the balance sheet structure of households in the Czech Republic and the euro area may imply different sensitivities to a change in interest rates and hence to the potential effect of the single monetary policy.

The interest rate fixation structure of loans in the Czech Republic and the euro area converged further, increasing the probability of similar **transmission of monetary policy through the interest rate channel.** Loans to households for house purchase continued to shift towards longer fixation periods both in the Czech Republic and the euro area, with 10-year fixations prevailing in the euro area and fixations of over five years and up to ten years prevailing in the Czech Republic. This is fostering greater similarity of monetary policy transmission, but it may also imply a decrease in the sensitivity of client interest rates to changes in short-term market or monetary policy rates. Fixation periods have also increased slightly further for loans to non-financial corporations in the Czech Republic and the euro area, but around 80% of loans provided to non-financial corporations in the countries under review still have floating rates or rates fixed for up to one year. This implies relatively fast transmission of changes in monetary policy rates and, in turn, market rates to loan rates in this segment. However, monetary policy transmission through the various channels works with different intensities in the Czech Republic and the euro area, as indicated by differences in the size of the individual components of the spread between client rates on loans to non-financial corporations and the overnight interbank rate. For a long time, this spread was lower in the Czech Republic, but it has risen above the euro area level in the Czech Republic due to the coronavirus crisis. The similarity of the composition of these ranges has meanwhile increased.

The Czech economy is characterised by gradually rising **use of the euro** by non-financial corporations, due to its high trade integration with the euro area and to domestic firms' efforts to hedge against exchange rate risk. This is reflected in increased drawdown of foreign currency loans, motivated in part by a widening of the positive interest rate differential between the Czech economy and the euro area over the last two years. Manufacturing – with its large proportion of exporters – and also the real estate sector have high shares of euro-denominated loans. Given the previous increase in corporate debt in foreign currencies, repayment of these loans may be adversely affected by a marked weakening of the koruna-euro exchange rate combined with a decline in euro revenues from abroad because of the coronavirus crisis. Growth in foreign currency loans slowed in the second quarter of 2020. This was accompanied by a substantial increase in short-term export hedging by some firms on the financial market. The share of euro payments between Czech firms has been largely unchanged at around 20% in recent years. By contrast, the euroisation of Czech households, which have negligible foreign currency debt and deposits, has long remained low.

2.2 Adjustment Mechanisms

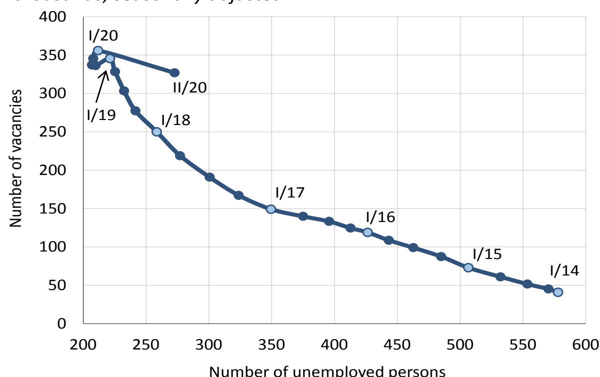
If set correctly, **fiscal policy** should have a countercyclical effect in times of recession and thus be a stabilising element for the economy. Otherwise it becomes a source of shocks and deepening macroeconomic imbalances. In the current situation, it is difficult to assess the medium- and long-term fiscal policy outlook as regards the functionality of adjustment mechanisms. Given the current situation caused by the COVID-19 pandemic, fiscal policy is focused mainly on mitigating the economic and social consequences of the ongoing pandemic. The 3% Maastricht convergence criterion for the general government deficit will be exceeded in the Czech Republic in 2020, and the medium-term objective (MTO) for the structural balance (-0.75% of GDP) will not be met either. However, given the need to stabilise the pandemic-hit economy using fiscal policy instruments, these developments are justified and in conformity with EU and domestic legislation. The government debt level on the eve of the pandemic was relatively low, and budgets were always at the level of the MTO or better in the past seven years. However, it should be noted that even before the outbreak of the pandemic, the overall and structural balance had worsened slightly in the Czech Republic, reflecting, among other things, growth in mandatory expenditure. Fiscal policy was thus procyclical in 2018 and 2019. Czech public finance sustainability remains unresolved. Population ageing will put increasing pressure on public finances. Going forward, the Czech Republic will not avoid the need to implement long-

postponed reforms of its social systems, especially the pension and health care systems and the provision of long-term care.

The **labour market** is another important mechanism through which the economy can cope with asymmetric shocks in the absence of independent monetary policy. Labour market indicators have been improving in recent years – because of the favourable phase of the business cycle and a decline in structural unemployment – but signs of a gradual cooling are beginning to show. This is indicated mainly by a decline in unemployment, a turnaround in the Beveridge curve and slower long-term growth in the rate of economic activity. The still very low long-term unemployment rate remains a positive for the time being. Increasing labour market flexibility was fostered until 2019 by a gradually increasing share of foreign nationals in the population; the rise in the share of part-time jobs has conversely halted. The configuration of the tax and social benefit system, which is giving rise to a risk of unemployment and low-income "traps", remains a negative aspect. The Czech Republic is still one of the better-scoring countries under review as regards the overall competitiveness of the economy.

Chart 2.5: Beveridge curve

in thousands; seasonally adjusted

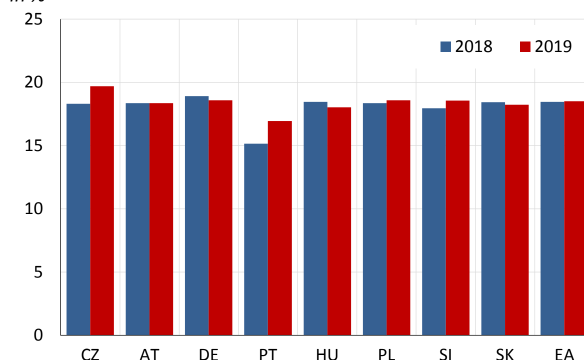


Note: The graph presents data from the Labour Office (registered job applicants and registered vacancies) in accordance with the methodology used by the Ministry of Labour and Social Affairs.
Source: Ministry of Labour and Social Affairs (2020).

The **condition of the financial sector** of an economy plays an important role in its ability to absorb economic shocks. The domestic financial sector developed favourably last year and thus maintained its high resilience to potential adverse shocks. Its dominant segment, the banking sector, entered the recessionary phase of the financial cycle caused by the outbreak of the coronavirus pandemic with a robust capital and liquidity position. Profitability hit a historical high but started to decline with the onset of the crisis, due mainly to emerging growth in expected credit losses. The CNB supported the banking sector's capacity to absorb losses and lend to the real economy by gradually lowering the countercyclical capital buffer rate from 1.75% to 0.5%.

Chart 2.6: 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 (2020), Eurostat (2020).

3 Situation and Institutional Developments in the Euro Area

Economic growth in the euro area gradually slowed down in 2017–2019 owing to weaker global trade dynamics and increased uncertainty, reaching 1.3% in 2019. All the major economies of the euro area have declined significantly this year due to the COVID-19 pandemic, and only a gradual recovery is expected. Some countries are experiencing long-term structural problems, solutions of which have been temporarily put on the back burner due to the recession.

3.1 Situation in the Euro Area

Economic alignment of euro area countries is essential to the smooth functioning of the monetary union. Although some macroeconomic imbalances diminished in 2019 due to the rate of economic growth and a more restrictive regulatory framework, large differences persist.

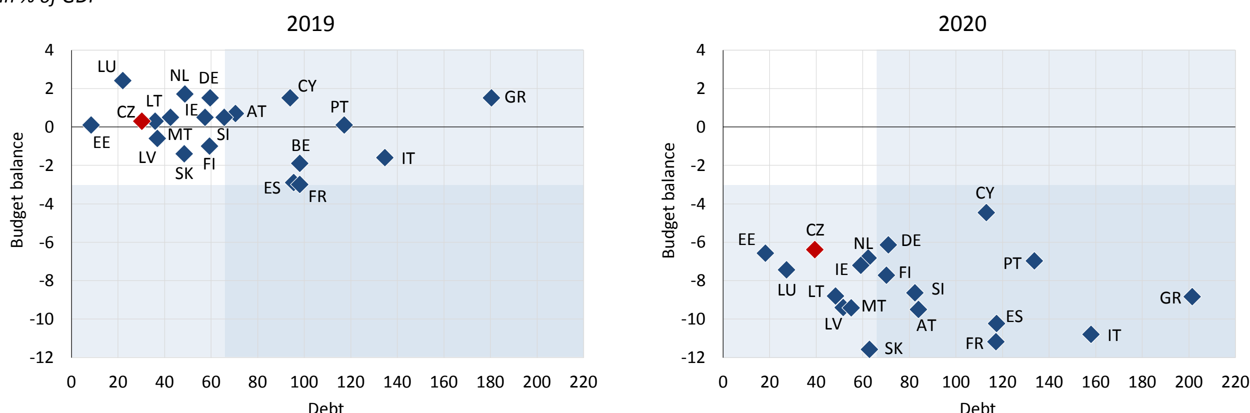
Protectionist measures and trade tensions between major economies resulted in weakening economic confidence. Risks in this area persist, with the import duties on European cars under consideration by the USA set to have the biggest impact. The United Kingdom left the EU on 31 January 2020, marking the start of the transition period for resolving outstanding issues. This period ends at the end of this year and, under the withdrawal agreement between the EU and the UK, cannot be extended.

The trends in the relative economic levels of the euro area Member States are very uneven. While the Baltic countries and Slovenia recorded an improvement in previous years, the economies of the southern countries (Italy, Spain, Greece and Portugal) have been virtually flat in relative terms in recent years and their economic position is noticeably weaker than it was in 2008–2009. Despite some improvement, there are still substantial differences in the labour market. In 2019, the rate of unemployment exceeded 17% in Greece and 14% in Spain, while in Italy it fell to 10%. The long-term unemployed account for a large proportion of the total unemployed. In Germany and the Netherlands, by contrast, the unemployment rates were above 3%. However, due to the impact of the coronavirus pandemic, especially on the services sector, the rate of unemployment in the euro area is likely to show an upward trend in 2020 despite the employment support programmes rolled out by governments.

After a long decline, the euro area general government deficit was virtually unchanged year on year in 2019, at 0.6% of GDP (the same as in 2007, the year before the economic crisis). General government debt exceeded 60% of GDP in nine euro area countries. In Portugal, Greece and Italy, it was even well above 100% of GDP. The average debt in the euro area fell to 84% of GDP. In 2019, only ten of the 19 euro area countries were compliant with both the deficit and debt reference values.

General government finance is expected to deteriorate considerably across the board this year due to the coronavirus pandemic. The restrictive measures, which have led to an economic contraction, will be reflected in a drop in revenues. Faster growth in government expenditure resulting from large-scale government support programmes will have the same effect. According to estimates, no euro area country will fulfil both fiscal reference criteria in 2020.

Chart 3.1: Fiscal positions in the euro area and the Czech Republic
in % of GDP



Note: The Czech Republic is not a euro area country and is only listed here for comparison. Data as of 22 October 2020.
Source: Notification tables of the various countries, Eurostat (2020).

The expected fall in economic output due to the COVID-19 pandemic should have a stronger impact on major economies with macroeconomic imbalances (Italy, France and Spain). This could further widen the divergence in the economic paths of the euro area countries and exacerbate fiscal imbalances. From the medium- and long-term perspective, unresolved trade issues and inconsistent and incomplete implementation of structural reforms are not helping economic growth either.

3.2 Institutional Developments in the EU and Related Obligations

Since the Czech Republic joined the EU, many reforms have been implemented at the EU level in order to enhance the stability and deepening of the Union. Nonetheless, the institutional framework of the EU and especially of the euro area is continuing to evolve, and additional institutional and financial obligations may arise for the Czech Republic from the submitted and possible future proposals. These must be taken into consideration when deciding on euro area entry, along with the benefits such proposals may have for the smooth functioning of the euro area and the prosperity of its Member States.

A Strategic Agenda for 2019–2024 was adopted at the European Council meeting in June 2019. This set out priorities for the EU going forward and, among other things, confirmed that deeper economic and monetary union is a priority for the EU, as it would strengthen its economic stability, resilience and growth potential.

In June 2019, the euro area Member States took another minor step towards achieving this goal by agreeing on the main elements of the budgetary instrument for euro area and non-euro area countries. In connection with the Next Generation EU instrument prepared in response to the COVID-19 pandemic, the originally proposed instruments have been changed so that they now pertain to all EU countries.

During 2020, the work at EU level has been focused primarily on measures directly connected with containing the COVID-19 pandemic, and, as a result, activities related to the completion of the banking union were set aside. The Member States returned to this topic in September and committed to further intensive work in this area.

However, some progress has been made in developing the banking union. A banking package to strengthen the resilience and resolvability of EU banks was adopted in 2019. The package enshrined a set of reforms aimed at improving the situation in those areas. It also implements important international standards and aims to contribute to the completion of the implementation of "post-crisis" international regulation.

The Commission has been working continuously with the Member States concerned to reduce the high level of non-performing loans – in the framework of the European Semester and elsewhere – and the Commission has proposed a comprehensive framework for dealing with non-performing loans in accordance with the state aid rules. Banks have made significant progress since the crisis in reducing their debt levels, improving the quality of their loan portfolios and increasing their liquidity.

The latest Commission Progress Report (EC, 2019b) reveals that the non-performing loans ratio for all EU banks further declined towards pre-crisis levels in the third quarter of 2018, falling to 3.3%. Nonetheless, the measures adopted in response to the spread of the coronavirus this year can be expected to have negative impacts on this indicator, especially after the temporary loan moratorium ends. In 2019, the European Parliament and the EU Council agreed on new regulations for the application of capital requirements to banks that have non-performing loans on their balance sheets. The aim of the reform is to ensure that banks allocate sufficient own funds if new loans cease to be repaid, and to put appropriate incentives in place to prevent the accumulation of non-performing loans.

By contrast, no further progress has been made on a joint European Deposit Insurance Scheme for the euro area. Technical negotiations continued in this area during 2019 and until March 2020, when they were effectively suspended due to the pandemic. The issue of the common backstop for the Single Resolution Board was also discussed. This is a last resort instrument to be used if the Single Resolution Fund becomes depleted. In the euro area, the backstop will take the form of a European Stability Mechanism (ESM) credit line for the Single Resolution Board. As non-euro area banking union countries cannot be members of the ESM, they will provide the Single Resolution Fund with parallel credit lines under similar conditions to ensure equal treatment. The total sum of all the credit lines forming the backstop should equal the target level of the Single Resolution Fund, currently estimated at EUR 60–70 billion. The backstop will be fiscally neutral in the medium term, because the funds used in individual cases will always be repaid within three to five years, out of contributions collected from the banks in the banking union.

When it comes to the capital market, the EU has since 2015 been developing the concept of a Capital Markets Union. Building on a 2017 Mid-Term Review of the implementation of legislative and non-legislative measures, and following calls from the European Parliament (draft own initiative report, June 2020) and Council (Council conclusions, 5 December 2019), the

Commission in September 2020 published a new, ambitious Action Plan to boost the EU's Capital Markets Union over the coming years. The EU's top priority is to ensure that Europe recovers from the unprecedented economic crisis caused by coronavirus. According to the Commission, developing the EU's capital markets, and ensuring access to market funding, will be essential in this task.

In its Action Plan, the Commission put forward altogether sixteen legislative and non-legislative proposals which should contribute to the real fulfilment of the general objectives the EU set for itself at the start of the whole project. Specifically the Commission proposes to focus on simplifying access to company information, making it easier for SMEs to access non-bank finance, strengthening investor protection, harmonising national insolvency legislation and creating a single rulebook for EU capital market supervision.

Building the Capital Markets Union is a long-term project. In evaluating its first phase, the Commission and the Council agreed that significant progress had been made formally (as regards the submission and adoption of the planned measures). However, it cannot be said that any major progress has been achieved in the areas of focus of the Capital Markets Union. One reason for this is that it is not possible to fully evaluate the true impact of all the measures adopted, given the time aspect and the current extraordinary economic situation.

The work on deepening the Economic and Monetary Union was suspended from March to August 2020 due to the coronavirus crisis. Although work started again in September, neither the reform of the ESM nor the introduction of the backstop had been finalised by the cut-off date of this Assessment. Nonetheless, an important decision was taken in July 2020 to enlarge the banking union to include Bulgaria and Croatia and to accept them into the ERM II (see the Box for details). After fulfilling all the necessary conditions, the two countries joined ERM II and the banking union with the intention of adopting the euro as soon as possible.

As regards the response to the economic situation caused by the COVID-19 pandemic, relevant measures amounting to EUR 540 billion were initiated at European level during March 2020. The main elements of the joint response were an ESM credit line, EU budget instruments (especially SURE, an instrument to mitigate unemployment risks in an emergency) and a guarantee fund provided by the European Investment Bank.

In addition, the European Commission in May 2020 published a communication on the plan to support economic recovery in the EU (EC, 2020d). The aim of the proposal is to harness the full potential of the EU budget to mobilise investment and frontload financial support in the first crucial years of recovery. The proposals were endorsed politically at the July European Council, and approval of the related legislation is now underway in Council and the European Parliament. The main pillar of the recovery plan is the multiannual financial framework for 2021–2027, approved at EUR 1,074 billion (at 2018 prices). New tools will be created and key programmes strengthened so that investment can be directed quickly to where it is most needed. The other pillar is a EUR 750 billion recovery instrument – "Next Generation EU" – aimed at temporarily boosting the EU budget with financing raised on the financial markets.

The centrepiece of the recovery instrument is a Recovery and Resilience Facility. The aim of the facility is to provide large-scale financial support for reforms in the Member States and for public investment projects that will strengthen the cohesion and resilience of the Member States. The proposed allocation of EUR 672.5 billion (at 2018 prices) is a combination of grants (EUR 312.5 billion) and supplementary voluntary preferential loans (EUR 360 billion). To some extent, the facility builds on the work on the aforementioned budgetary instrument for the euro area and the non-euro area countries.

Given the ongoing discussions in the EU about the future institutional arrangement of the euro area, the obligations that would arise for the Czech Republic on accession to the euro area cannot be fully assessed at present. The new approach to accepting new members into ERM II is also important from the Czech Republic's perspective (see the Box). The estimated financial costs associated with the Czech Republic's hypothetical entry into the euro area, which arise mainly from participation in the banking union and the ESM and payment of the rest of the share in the subscribed capital of the ECB, are quantified in Appendix B.

Box: The Euro Adoption Process in Bulgaria and Croatia

In July 2018, Bulgaria announced its intention to enter the ERM II. Croatia followed suit in July 2019. These steps were part of the two countries' plan to adopt the euro on the earliest possible date. Both countries entered the ERM II in July 2020. In terms of exchange rate regime, however, their situation differed from that of the Czech Republic even before their entry.

Bulgaria had long applied a currency board, i.e. the strictest form of pegging the domestic currency to a foreign one, connected with automatic convertibility of the euro for the Bulgarian lev and vice versa. After the adoption of the euro in Germany, the original rate against the German mark (1 mark = 1 lev) was replaced by the conversion rate between the mark and the euro (1 euro = 1.95583 lev). The ERM II central rate was set at the same level. In addition to the standard fluctuation band of ±15% around the central rate, Bulgaria unilaterally committed to maintaining the currency board.

By contrast, **Croatia** applied a strict managed float in which the kuna was not firmly pegged to the euro but its exchange rate was stabilised through occasional foreign exchange interventions by the central bank. The central bank mainly intervened when it regarded exchange rate fluctuations as excessive. However, neither an upper nor a lower intervention point was specified. The ERM II central rate was set at 1 euro = 7.53450 kuna.

The exchange rate regimes in the two countries have remained broadly unchanged from the macroeconomic perspective, but not from the institutional one. The countries still maintain a fixed (Bulgaria) or largely fixed (Croatia) link between their currency and the euro.

ERM II participation for at least two years within the normal fluctuation margins without devaluing against the euro is one of the euro adoption criteria. The available ECB Convergence Reports (2014, 2016, 2018, 2020a) show that Bulgaria was also compliant with the other three criteria in the periods under examination, with the exception of the criterion on price stability roughly one year before the outbreak of the pandemic. Croatia was always compliant with the criterion on price stability and the criterion on interest rate convergence but never fulfilled the criterion on the government financial position, although only in the case of the debt component in the Convergence Reports since 2018.

Besides exchange rate regime, Bulgaria and Croatia differ from the Czech Republic in another important respect: spontaneous **euroisation** of the economy, i.e. voluntary substitution of the domestic currency by the euro, be it as a store of value, a unit of account or a means of payment. The ratio of euro-denominated bank loans to households and non-financial corporations to total loans to households and non-financial corporations can be used as a measure of euroisation. According to ECB (2020b), this ratio was 32% in Bulgaria and 51% in Croatia in 2019. In the Czech Republic, it is just 14%. The analogous ratio for deposits was 28% in Bulgaria, 49% in Croatia and a mere 7% in the Czech Republic. The high degree of euroisation in Croatia may be an argument for euro adoption (Dumičić et al., 2018).

Bulgaria's and Croatia's entry into ERM II was, for the first time ever, accompanied by **accession to the banking union**, which the two countries undertook to join during their ERM II entry negotiations with the euro area and Denmark. The ECB thus exercises direct supervision of their significant financial institutions from 1 October 2020. EU law does not stipulate such a condition for ERM II entry, but the condition is not inconsistent with it. The two countries accepted this condition voluntarily on the basis of preceding bilateral consultations and this act cannot be interpreted as having precedential effects with regard to the ERM II entry processes of other countries, including the Czech Republic. Therefore, the Czech Republic still does not regard participation in the banking union as a necessary condition for ERM II entry. A detailed analysis of the impacts of the Czech Republic's potential accession to the banking union will be included in the Updated Impact Study of Participation or Non-participation of the Czech Republic in the Banking Union (MF CR, 2020c), which will be submitted to the government in December 2020.

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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 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

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

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

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 Council in October 1994 and its statements in the November 1995 report entitled "Progress towards Convergence".

The European Monetary Institute 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 it "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 Obligations 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 obligations closely linked with entry, based on the current legal settings and a number of simplifying assumptions about economic factors. These are the financial costs and obligations for the Czech Republic (the public sector) or economic entities established in the Czech Republic. An exchange rate of CZK 26.2 to the euro, the expected exchange rate in 2020 Q4, is used for all currency conversions. With the exception of the obligation vis-à-vis the European Central Bank, these obligations arose after the Czech Republic's EU entry as a result of the further development of the EU, and therefore were not known at the time the Czech Republic committed to adopt the euro.

The table does not capture other factors that would have an impact on the Czech Republic's budget or, more broadly, on the conduct of 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 the 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 acts and/or institutions that would 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.

Payment of the rest of the Czech Republic's share in the subscribed capital of the ECB	**Unit**	**Estimate**
− 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).	*EUR mil* *CZK bn*	195.8* 5.1*
− 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).		

Obligations associated with the Czech Republic's participation in the European Stability Mechanism	**Unit**	**Estimate**
− The total obligation is CZK 413.7 billion, of which CZK 365.2 billion is a contingent liability payable in the event of full use of the European Stability Mechanism's lending capacity and in the extreme scenario.	*EUR bn* *CZK bn*	1.9** 49.1**
− The Czech Republic would then have to pay up capital totalling around CZK 48.2 billion within four years. These funds will remain the property of the Czech Republic, which in exchange will receive shares of the European Stability Mechanism of the same total nominal value. The Czech Republic will also acquire the relevant shareholder's rights and obligations.		
− The Czech Republic may theoretically adopt the euro without becoming a Contracting Party to the European Stability Mechanism, but euro area members can de facto make their consent to euro adoption in the Czech Republic conditional on the European Stability Mechanism entry.		

Liabilities to the Single Resolution Fund	**Unit**	**Estimate**
− The Czech Republic is obliged 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.	*EUR bn* *CZK bn*	up to 1.3*** up to 33.2***
− The annual fees that Czech banks would have paid for the operation of the Single Resolution Board in 2018 if the Czech Republic had been a banking union member in the said year.	*EUR mil* *CZK mil*	1.1 28.8
− 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).****		

Costs associated with the Czech Republic's participation in the Single Supervisory Mechanism (an obligation since 2014)	**Unit**	**Estimate**
− These reflect the total annual fees that Czech banks would have paid the ECB for supervision in 2018 if the Czech Republic had been a banking union member in the said year.*****	*EUR mil* *CZK mil*	5.4 141.3

Note: * *Moreover, euro adoption is connected with an obligation to transfer to the ECB a part of the international reserves (and contribute to the ECB's reserve funds). In accordance with the Statute of the ESCB, the ECB specifies the details in its decision on the country's euro area entry. This obligation would total approximately EUR 800–900 million.*

** *Paid-up capital represents CZK 48.2 billion of the Czech Republic's share in the subscribed capital of the European Stability Mechanism; the rest is contingent liabilities. The Czech Republic's share in the subscribed capital does not take into account a temporary correction of the European Stability Mechanism capital subscription key, to which economically weaker European Stability Mechanism members are entitled (and to which the Czech Republic would also be entitled in the current situation).*

*** *This is the upper limit signifying the target level of the National Resolution Fund (CZK 33.2 billion). The size of banks' contributions in the banking union will depend on their risk profile and on the specific number of Member States that join the banking union. In the case of the Czech Republic, with its less risky banking sector, the amount transferred would probably be lower than stated here. For illustration, it can be estimated at CZK 17–26 billion if certain simplifying assumptions are applied. This would mean that the Czech banking sector would transfer CZK 7–17 billion less for resolution purposes at the central level than it would transfer to the National Resolution Fund in the Czech Republic. On the other hand, institutions in the Czech Republic would be exposed to a risk of additional payments to the joint fund if its resources were needed to resolve banks in other member countries of the banking union.*

**** *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 Single Resolution Fund as of the date of entry.*

***** *Assuming an unchanged distribution of banks in the banking union and the Czech Republic in 2017 (i.e. using the end-2016 data).*

Glossary

An **asymmetric shock** is a macroeconomic shock with an uneven impact on the individual countries of the monetary union.

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.

Discretionary measures are direct interventions by executive or legislative authorities in the revenues and expenditures of the general government sector.

The **euro area** 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** 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, its operations are closely linked with EU law as well as EU and euro area institutions.

The **Euro Summit** is a meeting of the heads of state or government of the euro area countries. The Extended Euro Summit is a Euro Summit attended also by the heads of state or government of other EU Member States.

The **general government sector** is defined using internationally harmonised rules at EU level. 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** 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** 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 −0.75% 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 direct control of executive or legislative authorities (e.g. expenditure on flood damage repairs).

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** is a fund financed by contributions from banks, collected by the participating countries. Lending between national compartments will be allowed. To prevent a shortage of funds in the Single Resolution Fund 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. A permanent mechanism of financial backstops should be fully operational by the end of the transitional period.

The **Single Resolution Mechanism** 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** 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** 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).

Ministry of Finance of the Czech Republic
Letenská 15
118 10 Praha 1

www.mfcr.cz

Czech National Bank
Na Příkopě 28
115 03 Praha 1

www.cnb.cz