

IV. Croatia joining the euro area

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Abstract: Euro-area accession is an open, rule-based process. It requires the fulfilment of four economic convergence criteria - sometimes referred to as the Maastricht criteria - on price stability, sustainable public finances, exchange rate stability and nominal long-term interest rate convergence. A country's national legislation on monetary affairs must also be brought into line with the Treaty on the Functioning of the European Union. The latest assessment of progress made by the non-euro Member States on converging towards adopting the euro was published in the Commission's 2022 Convergence Report on 1 June 2022. This assessment found that Croatia fulfilled all the convergence criteria, paving the way for the Council decision of 12 July 2022 that Croatia becomes the 20th member of the euro area as of 1 January 2023. This section presents the key economic considerations underpinning this positive assessment, emphasising the sustainability of convergence. It also examines a few methodological issues specific to the 2022 assessment.

IV.1. Introduction

Member States adopting the euro are required to show achievement of a high level of sustainable economic convergence. Article 140(1) of the Treaty on the Functioning of the European Union (TFEU) stipulates that such convergence be assessed with reference to the fulfilment of four economic convergence criteria: price stability, sustainable public finances, exchange rate stability and nominal long-term interest rate convergence. The achievement of convergence (the fulfilment of the criteria) must also be sustainable, meaning that it must be durable, not based on temporary factors. Finally, a country's national legislation on monetary affairs must be brought into line with the requirements of the Treaty.

The Commission's latest assessment of convergence, covering all the non-euro area Member States except Denmark⁽¹⁴²⁾, was published in its Convergence Report on 1 June 2022⁽¹⁴³⁾. The report concluded that, based on data available up to April 2022, only Croatia fulfilled the convergence criteria set out in the TFEU. The report therefore concluded that Croatia was ready to adopt the euro on 1 January 2023. This section presents the key considerations underlying that assessment, including the main methodological issues. Subsection IV.2 sets out the TFEU's criteria for assessing convergence.

Subsection IV.3 focuses on Croatia's convergence with the euro area, including the underlying macroeconomic analysis on the sustainability of convergence. Subsection IV.4 reviews several methodological issues specific to the 2022 assessment. Subsection IV.5 concludes with what must be done next for Croatia's to become the 20th member of the euro area.

IV.2. Assessment of convergence criteria

In its 2022 Convergence Report, the Commission's convergence assessment was based on the following nominal convergence criteria, in line with Article 140(1)⁽¹⁴⁴⁾ of the TFEU.

- Price stability, as shown by average inflation in the period of 1 year before the assessment not exceeding by more than 1.5% average inflation of, at most, the three best-performing Member States in terms of price stability. The inflation reference value for the purpose of this report was 4.9% in April 2022, based on the inflation rates of France, Finland and Greece, which had the lowest inflation rates after conducting an outlier analysis to identify countries whose inflation rates cannot be seen as meaningful for the selection of the three best-performing Member States in terms of price stability (Box IV.2 for more details).
- Sound and sustainable public finances as shown by the absence of a Council Decision on the existence of an excessive government deficit as determined in accordance with Article 126(6) of the TFEU.

⁽¹⁴²⁾ Denmark, having negotiated an opt-out arrangement before the adoption of the Maastricht Treaty, does not participate in the third stage of Economic and Monetary Union.

⁽¹⁴³⁾ https://economy-finance.ec.europa.eu/publications/convergence-report-2022_en. The Commission's assessment was complemented by the European Central Bank's (ECB's) own Convergence Report: <https://www.ecb.europa.eu/pub/convergence/html/index.en.htm>

⁽¹⁴⁴⁾ The cut-off date for the data was 18 May 2022 so that the last monthly data cover April 2022.

- Exchange rate stability as shown by participation in the Exchange Rate Mechanism (ERM II) without severe tensions and without devaluation for a period of 2 years before the assessment. The two-year period for assessing exchange rate stability in this report was 19 May 2020 to 18 May 2022.
- Long-term interest rate convergence as shown by average nominal long-term interest rates over the preceding year not exceeding that of the three best EU performers in terms of price stability by more than 2%. The reference value for this criterion was 2.6% in April 2022.
- In addition to the above nominal convergence criteria, legal compliance in monetary field with the TFEU and the Statute of the European System of Central Banks/the ECB was also assessed as part of the convergence assessment⁽¹⁴⁵⁾. The TFEU also requires an assessment of other factors relevant for economic integration and convergence, to complement the assessment of the nominal convergence criteria. These additional factors include the integration of markets, the development of the balance of payments, the business environment, and the quality of the institutional framework. The assessment of additional factors is seen as an important indication of whether the integration of a Member State into the euro area would proceed smoothly and sustainably.
- As stipulated in the TFEU, the progress made on convergence (the fulfilment of the criteria) must be sustainable, meaning it must be durable, not based on temporary factors. In the case of inflation, sustainability means that satisfactory inflation performance must be due to the adequate behaviour of input costs and other factors structurally influencing price developments, rather than to cyclical or temporary factors. The convergence assessment therefore takes into account the role of the macroeconomic situation and the cyclical position of the economy in the inflation performance, developments in unit labour costs, and developments in import prices, to

assess how external price developments have affected domestic inflation. The impact of administered prices and indirect taxes on headline inflation is also considered.

- As summarised in Table 1, Croatia was the only Member State that fulfilled all the convergence criteria.

Table IV.1: **Conclusions of the 2022 Convergence Report**

Member State	Legal compatibility (art. 131 TFEU)	Price stability Reference: 4.9% EA average: 4.4%	Public finances	Exchange rate	Long-term interest rate Reference: 2.6% EA average: 0.3%
Bulgaria	Not fully	No (5.9%)	Yes (No EDP)	Yes (ERM II)	Yes (0.5%)
Czechia	Not fully	No (6.2%)	Yes (No EDP)	No	Yes (2.5%)
Croatia	Fully	Yes (4.7%)	Yes (No EDP)	Yes (ERM II)	Yes (0.8%)
Hungary	Not fully	No (6.8%)	Yes (No EDP)	No	No (4.1%)
Poland	Not fully	No (7.0%)	Yes (No EDP)	No	No (3.0%)
Romania	Not fully	No (6.4%)	No (EDP)	No	No (4.7%)
Sweden	Not fully	Yes (3.7%)	Yes (No EDP)	No	Yes (0.4%)

Source: Commission's Convergence Report 2022.

IV.3. Croatia's sustainable convergence with the euro area

The Commission's assessment concludes that Croatia has fulfilled the four nominal convergence criteria and its legislation is fully compatible with the TFEU. This paved the way for the Council decision of 12 July 2022 that Croatia becomes the 20th member of the euro area.

Price stability

Average inflation (Harmonised Index of Consumer Prices (HICP)) during the 12 months preceding the end of April 2022 was 4.7%, slightly below the reference value of 4.9%. The reference value was calculated as the average of the twelve-month average inflation rates in France, Finland, and Greece, plus 1.5 percentage points (Box IV.2). Croatia's twelve-month average inflation rate in December 2022 and December 2023 was forecast at 6.1% and 2.8%, respectively. These results were closely aligned with those of the euro area (6.1% and 2.7% respectively) and below the projected reference values (6.3% and 3.4%).

Taking a longer perspective, inflation in Croatia has been broadly in line with that of the euro area since the country joined the EU (Graph IV.1). Croatia experienced a short period of relatively high inflation in the year before joining the EU, driven by sluggish productivity growth and changes in taxation. However, by the time it joined the EU in July 2013, inflation had come down significantly. Since the second half of 2013, both headline and

⁽¹⁴⁵⁾ Legal compliance is assessed in terms of the central bank independence, the prohibition of monetary financing and privileged access, and the Member State's integration into the European System of Central Banks.

core inflation have been very close to the euro area average, with annual deviations never exceeding one percentage point. This reflects several interrelated factors, including Croatia's exchange rate regime (see below), high and increasing trade and financial integration, and a business cycle relatively synchronised with the euro area. As a result, Croatia has been found to have fulfilled the price stability criterion in every convergence report since it joined the EU.

However, given the currently high uncertainty surrounding the inflation outlook, Croatia's successful integration into the euro area will require the continued monitoring of several upside inflation risks. Long-term inflation prospects will depend in particular on wages growing in line with productivity. Investments and reforms related to the implementation of the Recovery and Resilience Facility (RRF) could also be important drivers of future price developments. On the one hand, recovery and resilience plan (RRP) investments will boost aggregate demand in the economy. This could put upside pressures on prices in the short term. On the other hand, many reforms (reduction of the administrative burden and para-fiscal charges, the deregulation of services etc.) should enhance market competition and reduce costs for companies, exerting downward pressures on the prices of final products in the long term.

Graph IV.1: **HICP Inflation**



Source: Eurostat.

Sound and sustainable public finances

Croatia was not subject to a Council decision on the existence of an excessive government deficit. This was the case for all Member States except

Romania⁽¹⁴⁶⁾, reflecting the position taken by the Commission for the past 2 years not to propose to open excessive deficit procedures, given the extraordinary uncertainty created by the COVID-19 crisis and its aftermath. In any case, Croatia's deficit was below 3% of GDP in 2021.

A country joining a monetary union makes it even more important to have adequate fiscal capacity and fiscal buffers to complement the common monetary policy and address the asymmetric effects of shocks. In most of the years before the pandemic, Croatia's fiscal stance was contractionary⁽¹⁴⁷⁾ (Graph IV.2), with a considerable improvement in the structural budget balance during a period of robust growth. As a result, it significantly improved its fiscal position, from a government deficit of almost 8.0% of GDP in 2011 to a period of surpluses and balanced budgets in 2017-2019. This created the fiscal space needed to react, without endangering mid-term fiscal sustainability, to the particularly severe crisis triggered by the COVID-19 shock and to the impact of the current uncertainties related to rising energy and commodity prices. In 2020, in reaction to the COVID-19 shock, the fiscal stance was very much expansionary and counter-cyclical. In 2021, the government support measures were gradually phased out as the economy recovered, with both effects helping to shrink the headline deficit to 2.9% of GDP. According to the Commission's Spring 2022 Economic Forecast, the government deficit was expected to decline further in 2022 and 2023 to 2.3% and 1.8% of GDP respectively. New fiscal measures have been introduced since the Spring Economic Forecast to cushion the socioeconomic effects of rising energy and commodity prices.

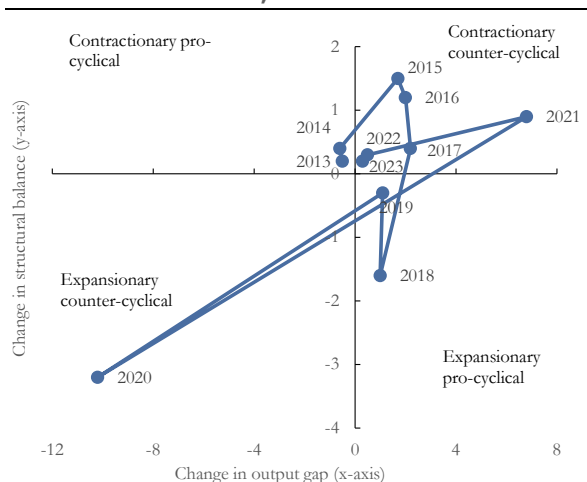
After decreasing significantly in the years before the COVID-19 crisis, Croatia's public debt spiked in 2020. However, in 2021, the debt ratio decreased by 7.5 percentage points, to just under 80% of GDP, resuming the positive pre-crisis trend. The positive trend was forecast to continue according

⁽¹⁴⁶⁾ Romania is subject to an EDP because its high deficit before the COVID-19 crisis.

⁽¹⁴⁷⁾ The fiscal stance is measured as the change in primary expenditure (net of discretionary revenue measures), excluding Covid-19 related temporary emergency measures but including expenditure financed by non-repayable support (grants) from the RRF and other EU funds, relative to medium-term potential growth. A negative (positive) sign of the indicator corresponds to an excess (shortfall) of primary expenditure growth compared to medium-term economic growth, indicating an expansionary (contractionary) fiscal policy.

to the Commission's Spring 2022 Economic Forecast both in 2022 and 2023 thanks to relatively strong nominal GDP growth and a further narrowing of the deficit. The Commission's fiscal sustainability analysis classifies Croatia as having low fiscal short-term sustainability risks in the short and medium fiscal sustainability risks in the medium and long terms ⁽¹⁴⁸⁾. Further strengthening of the sustainability of Croatia's public finances hinges on increasing the economy's growth potential, while continuing to follow fiscal rules.

Graph IV.2: Evolution of the fiscal stance in Croatia, 2012-2021



Source: Commission estimates.

Exchange rate stability

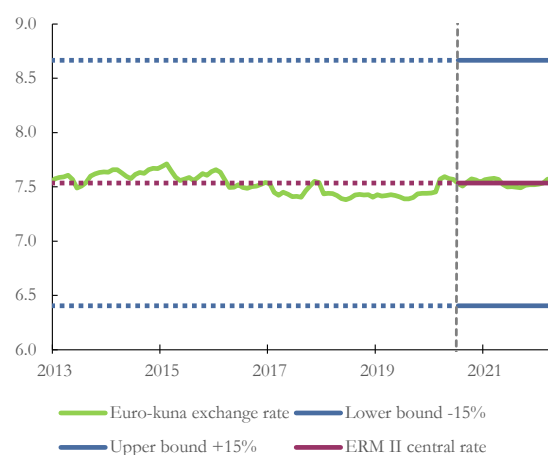
The euro-kuna exchange rate remained very close to the ERM II central rate for the 2 years covered by the assessment, without any signs of tensions. During this period, the kuna was never traded more than around 2% below or above a level equivalent to the central ERM II rate adopted in July 2020.

In fact, the kuna exchange rate has been remarkable stable for over a decade, even during periods of stress such as the global financial crisis and the COVID-19 crisis (Graph IV.3). The long track record of exchange rate stability is the result of Croatia's successive exchange regimes. Until the inclusion of the kuna in ERM II in July 2022, the Croatian National Bank operated a managed floating exchange rate regime, using the exchange

rate against the euro as the main nominal anchor to achieve its primary objective of price stability. Since its inclusion in ERM II, the kuna's volatility has further decreased, as the kuna has fluctuated in a narrow band of less than +/-1% of its central rate against the euro. In the last 2 years, the kuna's exchange rate against the euro has continued to exhibit a seasonal pattern of mild temporary appreciation in the summer, a consequence of foreign currency inflows related to the tourism sector. It usually went below the central rate against the euro in the summer and moved just above it in the remaining months.

Since joining ERM II, exchange rate stability has also been supported by a set of structural reforms. Under the new reinforced approach to ERM II participation (Box IV.1), before joining the mechanism, Croatia had implemented a number of policy commitments considered critical for its successful entry into and operation in ERM II. Since joining ERM II, national authorities have also committed themselves to implementing a set of additional policy measures, the so-called ERM II post-entry commitments, to ensure the country's smooth functioning in the euro area.

Graph IV.3: Euro-kuna exchange rate



Source: European Central Bank.

Long-term interest rate convergence

Croatia fulfilled long-term interest rate criterion by a large margin. In April 2022, the reference value, calculated as the average of long-term interest rates in France, Finland and Greece, plus 2 percentage points, was 2.6%. In that month, the twelve-month moving average of the yield on the Croatian

⁽¹⁴⁸⁾ Annex 20 (Debt Sustainability Analysis) of the 2022 Country Report - Croatia: https://ec.europa.eu/info/system/files/2022-european-semester-country-report-croatia_en.pdf.

benchmark bond was 0.8%, 1.8 percentage points below the reference value.

During most of the global financial crisis, Croatia's benchmark long-term interest rate was high, exceeding 6.0% between 2010 and 2012, compared with 4.0% in the euro area. The situation improved gradually as the crisis abated and the economy gained momentum. After Croatia joined the EU in 2013, the benchmark long-term interest rate used in the convergence assessment fell steadily from 4.0% in 2014 to 1.3% in 2019 and 0.5% in 2021. The spread with the German bund fell from 340 basis points in 2016 to 150 basis points in 2019 and 80 basis points in 2021, supported by a reduction in the government debt ratio and continued price and exchange rate stability ⁽¹⁴⁹⁾.

Additional factors

The analysis of additional factors also provided a positive indication of Croatia's ability to integrate into the euro area without difficulties.

First, the high level of trade and financial integration of the Croatian economy into the euro area is one of the main reasons for the high level of synchronisation of business cycles between the two economies (Kotarac, Kunovac and Ravnik, 2017) ⁽¹⁵⁰⁾. Recently published research (Deskar-Škrbić, Kotarac and Kunovac, 2020 and Deskar-Škrbić and Kunovac, 2020) ⁽¹⁵¹⁾ shows that, for the most part, business cycles and inflation in the euro area and Croatia share the same drivers and that symmetric (or common) factors in the euro area determine economic developments in Croatia the most ⁽¹⁵²⁾. The level of synchronisation of business

and inflation cycles between the two economies means that the Croatian economy is affected by spillovers from positive or negative demand and supply shocks in the euro area. The role of asymmetric (idiosyncratic) factors for GDP and inflation developments in Croatia has also been steadily decreasing for over a decade, and it is expected that euro adoption will result in the continuation of this trend. All of this suggests that using common monetary policy as a key policy instrument to address shocks that affect the whole euro area should be suitable for the Croatian economy.

Second, as the Commission's 2022 In-Depth Review concludes, Croatia is no longer regarded as experiencing macroeconomic imbalances. In particular, the deleveraging of the economy continued in 2021 on the back of a strong rebound in economic activity, with both public and private debt ratios decreasing and the current account returning to a surplus.

Third, Croatia's banking sector is highly integrated into the EU financial sector, in particular through foreign ownership of the banking sector. Around 90% of the sector's assets are held by subsidiaries of foreign banks. In parallel with the inclusion of the kuna in ERM II, the Croatian National Bank entered into close cooperation with the ECB, effectively joining the Banking Union. On 1 October 2020, in line with the reinforced approach to ERM II participation (Box IV.1), Croatia also joined the Single Resolution Mechanism, and the ECB became responsible for directly supervising Croatia's major banking institutions and for the oversight of less significant institutions.

On the other hand, Croatia performs worse than most euro area Member States in terms of the quality of its business environment, according to several commonly used indicators ⁽¹⁵³⁾, while corruption is an important issue, as reflected in Croatia's poor ranking in the perception of corruption index. These shortcomings weigh on Croatia's long-term potential growth, by hampering investment and weakening employment growth. However, there has been a renewed effort by the Croatian authorities to improve the business environment, in particular to reduce the

⁽¹⁴⁹⁾ The relationship between the bond market, macroeconomic fundamentals and a set of additional covariates in Croatia between 2011 and 2017 is examined in the following paper: Žaja, M. M., Jakovčević, D., and Višić, L. (2018), 'Bond Yield: Evidence from a Highly Euroised Small Open Economy', *International Journal of Economic Sciences*, Vol. VII(2), pp. 87-106.

⁽¹⁵⁰⁾ Kotarac, K., Kunovac, D., and Ravnik, R. (2017), 'Coherence of business cycles and economic shocks between Croatia and Euro Area Member States', Croatian National Bank Working Paper, WP 53.

⁽¹⁵¹⁾ Deskar-Škrbić, M., Kotarac, K., and Kunovac, D. (2020), 'The third round of euro area enlargement: Are the candidates ready?', *Journal of International Money and Finance*, 107, 102205. Deskar-Škrbić, Milan, and Davor Kunovac. 'Twentieth anniversary of the euro: why are some countries still not willing to join? Economists' view', *Comparative Economic Studies* 62.2 (2020): 242-262.

⁽¹⁵²⁾ Empirical literature points out that spillovers of shocks from major markets are stronger in emerging countries with (quasi-)pegged exchange rates, which could be seen as an additional reason why common shocks play the largest part in economic developments in Croatia. See, for example, Corsetti, G, K

Kuester, G Mueller, and S Schmidt (2021). 'The Exchange Rate Insulation Puzzle', CEPR Discussion Paper No. 15689.

⁽¹⁵³⁾ World Bank's Ease of Doing Business Index or the IMD World Competitiveness Index.

administrative burden and regulatory restrictions, and to make the justice and anti-corruption systems more efficient and effective, including in the context of the numerous RRP reforms and supported by the RRF.

IV.4. Methodological issues

The 2022 assessment of the convergence progress of the non-euro area Member States was carried out against the backdrop of extraordinary economic shocks and uncertainty, which gave rise to some methodological issues, namely the capacity of the assessment framework to adequately assess the impact of the COVID-19 pandemic and Russia's military invasion of Ukraine, as well as the need for an outlier analysis underpinning the selection of the three best-performing Member States in terms of price stability.

COVID-19 pandemic

The economic shock triggered by the COVID-19 pandemic and the recovery in 2021 had a significant impact on some of the economic indicators used in the 2022 Convergence Report. This was especially the case for the price stability criterion, as the measures taken in response to the COVID-19 crisis, the robust recovery in 2021 and the related supply bottlenecks and surge in commodity prices had major consequences for Member States' inflation performance. First, the dispersion of inflation rates across the EU increased dramatically in 2021 and 2022, mainly due to the heterogeneous impact of the recovery on inflation rates and differences in energy price inflation across Member States. The diversity of the fiscal and non-fiscal measures taken by national authorities to cushion the impact of higher energy prices also contributed to inflation dispersion. While some of these measures, such as social transfers to the most vulnerable households, did not have a direct impact on consumer prices, others, such as cuts in indirect taxes and wholesale and retail energy price subsidies, did have a direct impact on measured inflation. Long-term interest rates were also initially affected by the policy measures taken to stabilise financial markets and preserve favourable financing conditions and later by higher inflation expectations and the differentiated paths of monetary tightening across non-euro area Member States and relative to the euro area. The fulfilment of the public finances criterion was affected by the European Commission's decision, since spring 2020, not to

recommend launching new excessive deficit procedures, taking into account the exceptional uncertainty, including for designing a detailed path for fiscal policy.

Overall, however, the convergence assessment framework proved to be fairly resilient to the effects of the COVID-19 crisis on some indicators, for several reasons:

First, the analysis of compliance with the convergence criteria for inflation or interest rates is relative to the best-performing Member States in terms of price stability, and generally takes into account overall euro area performance. This has minimised the impact on the convergence assessment of the economic shocks triggered by the COVID-19 crisis.

Second, the assessment of the sustainability of convergence also relies on other indicators that are less influenced by these economic shocks, such as different measures of underlying inflation and price pressures, including core inflation (excluding energy and unprocessed food), wages and labour costs, and the contributions to HICP growth from imported inflation and administered prices and taxes.

Third, the sustainability of convergence was assessed by looking at likely economic developments based on the Commission's Spring Economic Forecast. The assessment of sustainability was also supported by an analysis of structural factors – by definition only marginally influenced by temporary shocks such as COVID-19 – including the quality of the business environment, trade links and financial integration. The findings of the Commission's enhanced surveillance process, notably the macroeconomic imbalances procedure, also provided information on developments in macroeconomic vulnerabilities that could hamper convergence.

Box IV.1: A reinforced approach to future ERM II participation

Learning from past episodes of economic overheating in ERM II and from the euro-area crisis, the ERM II parties clarified the modalities for a reinforced approach to future ERM II participation in July 2018, in the statement on Bulgaria's path towards ERM II.

The ERM II parties stated that this approach would apply to all Member States wishing to join ERM II from then onwards. The reinforced approach was confirmed in a statement by the ERM II parties in July 2019 on Croatia's path towards ERM II participation. This approach involves the applicant Member State and ERM II parties agreeing on several policy commitments to be implemented by the former before joining ERM II. This package of policy commitments aims at maximising the country's chances of operating smoothly in ERM II. Moreover, the applicant is expected to enter into an arrangement called 'close cooperation' with the European Central Bank (ECB) for banking supervision, which means joining the Banking Union.

In July 2019, Croatia committed to implementing policy measures in six areas before joining ERM II: i) banking supervision (close cooperation with the ECB), ii) the macroprudential framework, iii) the anti-money laundering framework, iv) statistics, v) public sector governance and vi) business environment. In June 2020, the Croatian authorities notified the ERM II parties that it had fulfilled these commitments, which the Commission and the ERM II parties welcomed.

At the time of its ERM II entry in July 2020, Croatia committed to implementing an additional set of policy measures (ERM II post-entry commitments). The aim was to achieve a high degree of sustainable economic convergence before adopting the euro and to strengthen its capacity so it can prosper in the euro area. Building on the progress with the prior-entry commitments, the post-entry commitments covered four areas: i) anti-money laundering, ii) business environment, iii) state-owned enterprises and iv) insolvency framework.

In spring 2022, Croatia reported to the Eurogroup Working Group and the Eurogroup on its full implementation of all four of its post-entry ERM II commitments. All of these commitments are also reflected in Croatia's recovery and resilience plan, which follows up with additional measures in all four areas.

The assessment in the 2022 Convergence Report also took into consideration for the first time the implementation of the ERM II post-entry commitments.

Russia's military aggression against Ukraine

As far as Russia's invasion of Ukraine is concerned, the cut-off date of the 2022 Convergence Report (18 May 2022) and the TFEU-defined methods for calculating the price stability and long-term interest rate criteria based on (backward-looking) one-year averages imply that the corresponding data used for the assessment largely reflect the situation before Russia's invasion.

Identifying the best performers in terms of price stability

The notion of best performers is, however, not defined explicitly in the TFEU. It has traditionally been interpreted in terms of the lowest inflation rates in the EU, consistent with the asymmetric application of the 1.5 percentage point margin. The long-established position of the European Commission in past convergence report analyses is

that the identification of the three best inflation performers should not be mechanical. It should be based on economic judgement. In particular, an outlier analysis should be done to identify countries whose inflation rates cannot be seen as meaningful benchmarks for other countries. This has resulted in the exclusion of outliers from the list of best performers in several cases in the past, notably in the Convergence Reports of 2004, 2010, 2013, 2014 and 2016. In the 2022 Convergence Report, Malta and Portugal were identified as outliers, leading to the selection of France, Finland and Greece as the three best inflation performers. Box IV.2 explains the methodological framework for identifying outliers and the reasons for excluding Malta and Portugal from the list of best performers.

IV.5. Conclusion

Membership of the euro area should be conducive to higher investment and consumption through lower financing and transaction costs, as well as higher inflows of capital. Removing of a large share of the remaining foreign exchange risks from the banking system, the liquidity and financial support possibilities in the euro area, and Croatia's integration into the banking union also further increase the economic credibility and stability. However, these benefits are not assured if the economy is not well prepared for the new currency. Implementing sound economic policies that increase potential growth and the adjustment capacity and strengthen the institutional framework is therefore crucial for successful membership of the euro area. In this respect, the implementation of the reforms and investments that are part of Croatia's RRP under the RRF will help further strengthen its economy, while the stability it will gain from joining the single currency will be especially valuable in times of crisis and uncertainty.

The assessment of convergence in 2022 was carried out during a period of significant economic upheaval, complicating the assessment of convergence. Looking ahead, while the convergence assessment framework has proved to be fairly resilient to the effects of the COVID-19 crisis, it should be acknowledged that shocks like Russia's military aggression of Ukraine and the weaponisation of energy supply may prove to be more challenging for the framework in the future. This is particularly the case for the assessment of inflation convergence. Very large supply shocks, such as the current one, tend to lead to significant divergences in inflation rates across the Member States. These asymmetric effects are in part due to differences in the structural features of national economies (the structure of the energy supply mix) and are therefore beyond the control of national authorities, in the short term at least.

Box IV.2: Outlier analysis underpinning the selection of the three best performers in terms of inflation

In the 2022 Convergence Report, France, Finland and Greece were identified as the 3 ‘best-performing Member States’ for calculating the reference value for the price stability criterion and, as a result, also the reference value for the long-term interest rate criterion. This outcome reflected the application of an ‘outlier analysis’ as in previous convergence reports.

As in the past, outliers in terms of inflation have been identified based on two criteria taken in combination: i) an inflation rate substantially below the euro area average and ii) an inflation rate driven by country-specific factors that cannot be seen as representative of the process driving inflation in the euro area.

On this basis, Malta and Portugal were identified as outliers in the 2022 Convergence Report.

In past convergence reports, Member States that had an inflation rate 1.5 percentage points or more below the euro area were generally considered as outliers. Similarly, in April 2022, the 12-month average inflation rates of Malta and Portugal were respectively 2.2 percentage points and 1.7 percentage points below the euro area average of 4.4%.

Country-specific factors were also at play:

- In the case of Malta, the change in the Harmonised Index of Consumer Prices (HICP) weights system in 2021 exerted strong downward pressure on the country’s headline HICP inflation (as opposed to an upward contribution on the euro area average). This was mainly due to a reduction in the weights of several services sectors that are important for the Maltese economy. Furthermore, energy prices remained stable despite the surge in international energy prices, largely reflecting sizeable financial support measures that were introduced as of late 2021 and targeted the energy sector. As a result, the 12-month average inflation rate for energy between May 2021 and April 2022 was -0.4% in Malta, compared to 24.7% for the euro area.
- In the case of Portugal, energy inflation in the 12-month period to April 2022 was limited, and the cyclical position of the country in 2021 was significantly weaker than that of most other EU Member States. A combination of factors weighed on energy inflation, including a broad range of regulatory measures that kept the growth in retail electricity and natural gas prices well below the EU average. Between May 2021 and April 2022, the average 12-month energy inflation rate in Portugal was 13.7%, compared with 24.7% for the euro area. In addition, the country’s activity was more severely hit than in most other EU Member States in the early stages of the COVID-19 pandemic, and its recovery in 2021 was slower. In the fourth quarter of 2021, Portugal’s GDP was still significantly below its pre-crisis peak, and the gap was the second largest in the EU. This mainly reflected Portugal’s large exposure to tourism and particularly aviation-based tourism, which was heavily hit by the pandemic. The relative weakness in Portugal’s recovery had a lasting dampening effect on inflation in services, particularly in sectors related to tourism.

Including Malta and Portugal in the list of best performers Member States would not have been appropriate from an economic perspective and have been unfair in terms of equal treatment of Member States. First, including them in the group of three best performers would have led to a very low reference value compared with the euro area average. It would have required that the Member States with a derogation – including Croatia – achieve a better inflation performance than what the euro area was able to deliver on average ⁽¹⁾. In all past convergence reports, the reference value for inflation was always above the inflation rate for the euro area. Second, the outlier analysis approach in the 2022 Convergence Report is similar to that followed in past

⁽¹⁾ Member States that have not fulfilled yet the necessary conditions for the adoption of the euro are referred to as Member States with a derogation.

(Continued on the next page)

Box (continued)

convergence reports. This ensures consistency and equal of treatment across time. In particular, as already noted, outliers were identified in the convergence reports of 2004, 2010, 2013, 2014 and 2016.