

# Euro area accession: assessment of the convergence path and COVID-19 implications

---





# Euro area accession: assessment of the convergence path and COVID-19 implications

---

## **Abstract**

The process of nominal convergence of non-euro area countries has somewhat deteriorated since 2020, driven by an amplification of pre-existing trends. While the COVID-19 seems to have had limited impact on key indicators, it made the convergence process more challenging. Uncertainty driven by the war in Ukraine is making the inflation criterion more difficult to meet and deteriorating economic prospects.

Based on data until April 2022, Croatia meets all legal convergence requirements and nominal criteria, for joining the euro in January 2023. The accession process for Bulgaria is behind, reflecting its commitment to join in 2024, but also great legal and economic challenges. An important finding is that accession criteria have become de facto stricter than they were for countries that joined the EMU earlier.

This document was provided by the Policy Department for Economic, Scientific and Quality of Life Policies at the request of the Committee on Economic and Monetary Affairs (ECON).

This document was requested by the European Parliament's Committee on Economic and Monetary Affairs.

## **AUTHORS**

Cinzia ALCIDI, CEPS

Francesco CORTI, CEPS

Andromachi GEORGOSOULI, Queen Mary University of London

Daniel GROS, CEPS

Tamás KISS-GÁLFALVI, CEPS

## **ADMINISTRATOR RESPONSIBLE**

Drazen RAKIC

## **EDITORIAL ASSISTANT**

Roberto BIANCHINI

Irene VERNACOTOLA

## **LINGUISTIC VERSIONS**

Original: EN

## **ABOUT THE EDITOR**

Policy departments provide in-house and external expertise to support European Parliament committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

To contact the Policy Department or to subscribe for email alert updates, please write to:

Policy Department for Economic, Scientific and Quality of Life Policies

European Parliament

L-2929 - Luxembourg

Email: [Poldep-Economy-Science@ep.europa.eu](mailto:Poldep-Economy-Science@ep.europa.eu)

Manuscript completed: June 2022

Date of publication: June 2022

© European Union, 2022

This document is available on the internet at:

<http://www.europarl.europa.eu/supporting-analyses>

## **DISCLAIMER AND COPYRIGHT**

The opinions expressed in this document are the sole responsibility of the authors and do not necessarily represent the official position of the European Parliament.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the European Parliament is given prior notice and sent a copy.

For citation purposes, the publication should be referenced as: Alcidi, C., Corti, F., Georgosouli, A., Gros, D., Kiss-Galfalvi, T., 2022, *Euro area accession: assessment of the convergence path and COVID-19 implications*, publication for the Committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg.

© Cover image used under licence from Adobe Stock

## CONTENTS

<b>LIST OF BOXES</b>	<b>5</b>
<b>LIST OF FIGURES</b>	<b>5</b>
<b>LIST OF TABLES</b>	<b>6</b>
<b>LIST OF ABBREVIATIONS</b>	<b>7</b>
<b>EXECUTIVE SUMMARY</b>	<b>10</b>
<b>1. INTRODUCTION</b>	<b>13</b>
<b>2. THE STATE OF NOMINAL AND REAL CONVERGENCE IN NON-EURO AREA COUNTRIES</b>	<b>17</b>
<b>2.1. Nominal convergence</b>	17
2.1.1. Price stability	17
2.1.2. Sound public finances	18
2.1.3. Exchange rate stability	20
2.1.4. Long-term interest rates	20
<b>2.2. Real convergence</b>	21
2.2.1. Price convergence and the Balassa-Samuelson effect	24
<b>3. EU RESPONSE TO COVID-19: EFFECTS ON CONVERGENCE</b>	<b>28</b>
<b>3.1. ECB monetary policy response</b>	28
<b>3.2. Easing the way for national fiscal policies</b>	31
3.2.1. Temporary state aid framework	32
3.2.2. Activation of the general escape clause	34
<b>3.3. Tackling the immediate effects of the pandemic: budgetary and financial support measures</b>	35
3.3.1. Coronavirus Response Investment Initiative (CRII and CRII+)	35
3.3.2. European Investment Bank initiatives	37
3.3.3. SURE	38
<b>3.4. Supporting Member States' recovery</b>	39
<b>4. LATEST DEVELOPMENTS IN CROATIA AND BULGARIA</b>	<b>41</b>
<b>4.1. Accession process and commitments</b>	41
<b>4.2. Overview of economic developments</b>	44
4.2.1. Economic outlook of Croatia and Bulgaria in early 2020	44
4.2.2. Depth of the pandemic crisis in Croatia and Bulgaria	45
4.2.3. Fiscal response to the COVID-19 crisis	46
<b>4.3. Trends in nominal convergence</b>	47
4.3.1. Price stability	47

---

4.3.2. Medium-term prospects	52
4.3.3. Sound public finances	52
4.3.4. Interest rates	53
4.3.5. Exchange rates	53
<b>4.4. Croatian recovery and resilience plan</b>	<b>55</b>
4.4.1. Investments in the NRRP	56
4.4.2. Reforms in the NRRP	57
4.4.3. Long-lasting impact of the NRRP	59
<b>4.5. Bulgarian recovery and resilience plan</b>	<b>60</b>
4.5.1. Investments in the NRRP	61
4.5.2. Reforms in the NRRP	62
4.5.3. Long-lasting impact of the NRRP	64
<b>5. SUSTAINABILITY OF CONVERGENCE CRITERIA</b>	<b>65</b>
<b>5.1. Additional economic factors</b>	<b>66</b>
5.1.1. Economic structure	68
5.1.2. Institutional factors	69
5.1.3. Perception	69
<b>6. LEGAL CONVERGENCE</b>	<b>71</b>
<b>6.1. Croatia</b>	<b>71</b>
<b>6.2. Bulgaria</b>	<b>72</b>
<b>6.3. Quality of statistics</b>	<b>75</b>
<b>7. CONCLUSIONS</b>	<b>77</b>
<b>REFERENCES</b>	<b>80</b>
<b>ANNEX: METHODOLOGICAL APPROACH</b>	<b>83</b>

## LIST OF BOXES

Box 1:	Lithuania's delay in joining the euro area	51
--------	--	----

## LIST OF FIGURES

Figure 1:	HICP 12-month average rate of change (%) (April 2015- April 2022)	17
Figure 2:	General government gross debt (% of GDP)	19
Figure 3:	General government budget balance (% of GDP)	19
Figure 4:	Bilateral exchange rate vis-à-vis the euro (index end of Jan 2006 = 100; monthly data; Jan 2006 – April 2022)	20
Figure 5:	Long-term interest rates (%) (April 2017- April 2022)	21
Figure 6:	Beta convergence: GDP per capita convergence in non-euro area countries relative to euro area average	22
Figure 7:	Changes in GDP per capita, 2020 and 2021	22
Figure 8:	Sigma convergence: coefficient of variation, euro area, non-euro area and EU	23
Figure 9:	GDP per capita average (LHS) and standard deviation (RHS) in the euro area and non-euro area group	23
Figure 10:	Employment rates: beta convergence (left panel) sigma convergence (right panel)	24
Figure 11:	Inflation dispersion (p.p.)	25
Figure 12:	Relationship between real GDP per capita and price levels (index value 2015 = 100)	26
Figure 13:	Relationship between labour productivity and price levels, tradeable (left panel) and non-tradable (right panel) (index value 2015 = 100)	26
Figure 14:	Evolution of price (left panel) and productivity levels (right panel) across sectors (index value 2015 = 100)	27
Figure 15:	Asset purchases by central banks during the pandemic (% of 2020 GDP), end-Feb 2020 to end-June 2021	31
Figure 16:	Discretionary fiscal measures under the temporary state aid framework (% GDP)	33
Figure 17:	Increase in debt levels in 2020 and pre-COVID-19 debt burden	34
Figure 18:	Budget deficits and debts	35
Figure 19:	Breakdown of investment volumes under CRII	36
Figure 20:	Allocation of reprogrammed funds under CRII/CRII+ explicitly indicated by non-euro area Member States using the Commission's common COVID-19 indicators	36
Figure 21:	Share of programmes and priorities	37
Figure 22:	Share and sectoral distribution of EIB COVID-19 projects across non-euro area Member States, 30 March 2022 (million euros)	38
Figure 23:	SURE loans, disbursed and proposed amounts per Member State	39
Figure 24:	Annualised MFF 2021-2027 and RRF grants (% of 2020 GDP)	40

Figure 25:	COVID-19 stringency index	45
Figure 26:	Fiscal measures in Bulgaria	47
Figure 27:	Fiscal measures in Croatia	47
Figure 28:	12-month HICP rate of change in Bulgaria and Croatia compared to the running reference value	48
Figure 29:	Croatian 12-month average HICP rate of change and reference values under the four scenarios	49
Figure 30:	Bulgarian 12-month average HICP rate of change and reference values under the four scenarios	49
Figure 31:	EU 12-month average rate of change in HICP components, April 2022	50
Figure 32:	12-month average rate of change in transport and housing & energy prices in best performers	50
Figure 33:	Bulgaria – BGN/EUR exchange rate	54
Figure 34:	Croatia - HRK/EUR exchange rate	54
Figure 35:	Planned Croatian expenditure financed by RRF grants, and expected completion of investment projects	55
Figure 36:	Croatian investments by six RRF pillars (% total)	56
Figure 37:	Planned Bulgarian expenditure financed by RRF grants, and expected completion of investment projects	61
Figure 38:	Bulgarian investments by six RRF pillars (% total)	61
Figure 39:	Current account, % GDP	66
Figure 40:	Real effective exchange rate, % change from previous year (left panel) and nominal ULC based on hours worked (right panel)	67
Figure 41:	Employment (left panel) and unemployment rates (right panel), 2003-2020	68
Figure 42:	Quality of governance indicators (selected countries), 1996-2020	69

## LIST OF TABLES

Table 1:	Provision of euro liquidity through ECB swap and repo operations in non-euro area Member States during COVID-19 pandemic	29
Table 2:	Bulgarian ERM II post-entry commitments	41
Table 3:	Croatian ERM II post-entry commitments	43
Table 4:	Overview of 2018 and 2020 ECB Convergence Reports for Croatia and Bulgaria	44
Table 5:	Timeline for completion of reforms and investment projects under Croatian NRRP	55
Table 6:	Timeline for completion of reforms and investment projects under Bulgarian NRRP	60
Table 7:	MIP scoreboard	65



---

## LIST OF ABBREVIATIONS

<b>ABS</b>	Asset-Backed Securities
<b>AMECO</b>	Annual Macro-Economic Database of the European Commission
<b>APP</b>	Asset Purchase Programme
<b>BGN</b>	Bulgarian lev
<b>BNB</b>	Bulgarian National Bank
<b>CF</b>	Cohesion Fund
<b>CPI</b>	Consumer Price Index
<b>CRII</b>	Coronavirus Response Investment Initiative
<b>EA</b>	Euro area
<b>EAFRD</b>	European Agricultural Fund for Rural Development
<b>EC</b>	European Commission
<b>ECB</b>	European Central Bank
<b>ECEC</b>	Early Childhood Education and Care
<b>EDP</b>	Excessive Deficit Procedure
<b>EGF</b>	European Guarantee Fund
<b>EIB</b>	European Investment Bank
<b>EIF</b>	European Investment Fund
<b>EMU</b>	Economic and Monetary Union
<b>EP</b>	European Parliament
<b>ERDF</b>	European Regional Development Fund
<b>ERM</b>	Exchange Rate Mechanism
<b>ESCB</b>	European System of Central Banks
<b>ESF+</b>	European Social Fund Plus

---

<b>ESM</b>	European Stability Mechanism
<b>EU</b>	European Union
<b>EUREP</b>	Eurosystem Repo Facility
<b>Eurostat</b>	Statistical Office of the European Union
<b>FDI</b>	Foreign direct investment
<b>GDP</b>	Gross domestic product
<b>GFC</b>	Global Financial Crisis
<b>HICP</b>	Harmonised Index of Consumer Prices
<b>HNB</b>	Hrvatska Narodna Banka (Croatian National Bank)
<b>HRK</b>	Croatian kuna
<b>IMF</b>	International Monetary Fund
<b>JTF</b>	Just Transition Fund
<b>LNG</b>	Liquefied natural gas
<b>MFF</b>	Multiannual Financial Framework
<b>MIP</b>	Macroeconomic Imbalance Procedure
<b>NCA</b>	National Competent Authority
<b>NCB</b>	National Central Bank
<b>NDA</b>	National Designated Authority
<b>NEET</b>	Not in education, employment or training
<b>NGEU</b>	Next Generation EU
<b>NIIP</b>	Net International Investment Position
<b>NMS</b>	New Member States
<b>NRRP</b>	National Recovery and Resilience Plan
<b>OCA</b>	Optimum currency area

---

<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PA</b>	Public administration
<b>RDI</b>	Research, development and innovation
<b>REACT-EU</b>	Recovery Assistance for Cohesion and the Territories of Europe
<b>REER</b>	Real effective exchange rate
<b>RRF</b>	Recovery and Resilience Facility
<b>PEPP</b>	Pandemic Emergency Purchase Programme
<b>PELTRO</b>	Pandemic Emergency Longer-Term Refinancing Operations
<b>P.P.</b>	Percentage points
<b>SECN</b>	Single Electronic Communications Network
<b>SGP</b>	Stability and Growth Pact
<b>SMEs</b>	Small and medium-sized enterprises
<b>SOE</b>	State-owned enterprise
<b>SRM</b>	Single Resolution Mechanism
<b>SSM</b>	Single Supervisory Mechanism
<b>STEM</b>	Science, technology, engineering and mathematics
<b>SURE</b>	Support to mitigate Unemployment Risks in an Emergency
<b>TFEU</b>	Treaty on the Functioning of the European Union
<b>TLTRO</b>	Targeted Longer-Term Refinancing Operations
<b>TSCG</b>	Treaty on Stability, Coordination and Governance
<b>ULC</b>	Unit labour cost
<b>VAT</b>	Value-added tax
<b>WGI</b>	Worldwide Governance Indicator

## EXECUTIVE SUMMARY

### Background

The EU Treaties make the introduction of the euro an integral part of the *acquis communautaire*, hence a binding requirement. Currently, seven EU Member States (so-called "Member States with a derogation") – Bulgaria, Croatia, Czechia, Hungary, Poland, Romania and Sweden – have an obligation to eventually adopt the common currency, while Denmark has negotiated an opt-out.

Every second year, the European Commission and the European Central Bank (ECB) publish an assessment of the state of convergence of non-euro area Member States. For a country wishing to join the monetary union, the Commission submits a proposal to the European Council based on this assessment. The European Council ultimately takes the decision on the recommendation of a qualified majority of those of its members representing Member States, whose currency is the euro, following consultation with the European Parliament and discussion in the European Council.

Croatia and Bulgaria are the two countries next in line for accession to the euro area: on 1 January 2023 and 1 January 2024, respectively.

The prerequisite for accession to the euro area, which forms the basis of the assessment by the Commission and the ECB, is to achieve a certain degree of nominal convergence, which is defined by criteria stipulated in the Maastricht Treaty (1993) and set out in Article 140 of the Treaty on the Functioning of the European Union (TFEU). The criteria include:

- price stability;
- sound public finances;
- exchange rate stability; and
- convergence in long-term interest rates.

Other than the nominal criteria, the convergence assessment should take into account additional factors that could offer indications of the country's ability to be part of the euro area without difficulties.

Requirements on legal convergence, i.e. compatibility of national legislation with the *acquis* in relation to the functioning of the national central banks (NCBs), add to the nominal criteria. They include:

- independence of the NCB and of the members of its decision-making bodies;
- compliance of national legislation with the prohibition of monetary financing and privileged access; and
- integration of the NCB into the European System of Central Banks (ESCB).

Finally, as a consequence of the reform of the Economic and Monetary Union (EMU) governance framework, candidate countries are *de facto* required to comply with additional requirements (often called "institutional" requirements), namely:

- joining the Banking Union, i.e. fulfilling requirements for the Single Supervisory Mechanism (SSM) and Single Resolution Mechanism (SRM);
- transferring contributions to the Single Resolution Fund;
- participating in the European Stability Mechanism (ESM); and
- complying with the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (fiscal compact).

## Aim

The aim of the study is to provide an overview of the state of nominal convergence of all non-euro area countries and to assess whether the COVID-19 pandemic had an impact on it. The study has a special focus on Croatia and Bulgaria, given their current desire to join the euro area in the near future. The study also assesses the implications of Russia's invasion of Ukraine for the nominal convergence process in the two countries.

This study is meant to provide an evidence-based analysis to the Members of the ECON Committee to form their own informed judgement ahead of the consultations of the European Council, in the context of the process of assessment of Croatia this year, and of Bulgaria next year.

## Key findings

The overall picture on the state of nominal convergence suggests that the process has been somewhat deteriorating since 2020. For most relevant indicators, it is more an amplification of pre-existing trends than a change in trend associated with the pandemic. The start of the war in Ukraine appears to have particularly affected price stability. Growing energy and food prices are leading to higher inflation across the EU, but especially in Eastern non-euro area Member States, hence making it more difficult for them to meet the price stability criterion.

Exchange rates have also been affected in countries outside the Exchange Rate Mechanism (ERM) II. Almost all national currencies have depreciated strongly against the euro. This trend existed already before the pandemic, but has become more marked since 2020, especially for the Polish zloty and Hungarian forint. The exceptions are the Swedish krona and the Czech koruna, which experienced an appreciation during COVID-19.

The impact of the pandemic and the war in Ukraine on the countries' capacity to meet the other convergence criteria (interest rates and public finances) seem quite limited. After the large budget deficits of 2020, most non-euro area countries managed to bring back the budget balance to below the 3 % threshold. It should be noted that the activation of the general escape clause, suspending the application of the fiscal rules. Uncertainty is, however, extremely high and the risk of deterioration of economic conditions is elevated for all EU countries.

Real convergence, which measures how fast countries starting with lower levels of gross domestic product (GDP) have been growing, although not a formal criterion for accession, has been ongoing during the last years. Non-euro area Member States, especially New Member States (NMS), which had a much lower initial level of income, made significant progress in catching up with the euro area average. It also appears that COVID-19 did not halt this pattern.

An important general finding of this study is that the accession criteria for Croatia and Bulgaria, and for those countries wishing to join the euro area in the future, are *de facto* stricter than they were for countries that joined the EMU earlier. In addition to the nominal criteria and legal requirements based on the Treaty, Croatia and Bulgaria were asked to join the Banking Union in the context of "close cooperation" with the ECB, at the time of joining ERM II.

At the time of joining ERM II, the two governments also committed to additional reforms (ERM II post-entry commitments) considered necessary for achieving a sustainable economic convergence and successful participation in the euro.

## **Croatia**

Based on data updated in April 2022, Croatia meets all nominal convergence criteria. The price stability criterion is met once two out of the three best price stability performers (Malta and Portugal) are considered as outliers and excluded from the calculation of the reference value. The European Commission and the ECB convergence reports, published in June 2022, recognise the exceptionally low inflation in the two countries and give a positive assessment of Croatia. The "outlier" argument has been already used several times in the past, hence it is not an exception. It should be added that, for Croatia, the price stability criterion is projected to be met also in the months ahead, not only at time of the assessment.

Legal convergence was also achieved in 2020, when the country joined ERM II. At that time, Croatia also joined the Banking Union and the country's significant institutions have been under the supervision of the SSM since October 2020.

Progress in real convergence and the consideration of other factors that could affect the sustainability of nominal convergence seem to point to alignment with the euro area average, with no major risks being identified. The national recovery and resilience plan (NRRP), through which a very substantial amount of money will be injected into the economy (about 12 % of GDP until 2026), is also expected to drive important reforms of the economy.

While the final decision will be made by the Council, Croatia seems to be well placed to adopt the euro as planned in January 2023. The country appears ready also from the technical point of view, as preparation to transition to the euro has already started.

## **Bulgaria**

The accession process for Bulgaria is behind that of Croatia, as the commitment to join is for 2024.

While the political instability of 2021 did not result in a de-commitment, it has led to delays, which have affected the accession preparation process and the approval of the NRRP. Similar to Croatia, the plan is expected to inject a very large amount of resources (more than 9 % of GDP until 2026) for investment. The country will have to prove that it has the ability to absorb and use the money effectively, against a rather poor track record.

More importantly, as at May 2022, Bulgaria does not meet all the nominal convergence criteria; in particular price stability is not achieved. This is the case even if all three best performers were to be considered as outliers. Furthermore, projections point to persistent and considerable challenges to price stability. The importance of energy-intensive industry for the economy and the strong energy dependence on Russian supplies, which have been cut, are likely to lead to additional inflationary pressures. Unless conditions change substantially in the course of 2022, it will be very difficult for Bulgaria to meet the price stability criterion by mid-2023.

Legal convergence has also not been achieved yet and further effort is required to overcome unresolved issues of incompatibility. By contrast, real convergence towards the euro area average has strongly progressed in recent years. Similar important progress was made in 2020, when the country joined ERM II and the Banking Union. The latter represents a major step forward for the credibility of the banking sector and the financial stability of the country.

Finally, widespread and growing concerns among the population of price increases driven by the introduction of the euro could lead to declining popular support for accession. This risk may be exacerbated by rampant inflation, which could lead the government to reconsider the time of accession.

## 1. INTRODUCTION

January 1999 marked the start of the "third stage" of the Economic and Monetary Union (EMU) for the 11 original participating countries. Since then, eight more European Union (EU) Member States have entered the euro area, with Lithuania being the last to join in 2015. The EU Treaties make the introduction of the euro a binding requirement. Indeed, membership of the EMU is an integral part of the *acquis communautaire*, and EU Member States have accepted it as a political commitment with all its implications. Currently, seven Member States that are not part of the euro area (defined in the Treaty as "Member States with a derogation") – Bulgaria, Croatia, Czechia, Hungary, Poland, Romania and Sweden – have an obligation to eventually adopt the common currency, while Denmark has negotiated an opt-out.

The prerequisite for accession to the euro area is to achieve a certain degree of nominal convergence. The convergence criteria were first stipulated in the Maastricht Treaty (1993). They are set out in Article 140 of the Treaty on the Functioning of the European Union (TFEU) and developed in [Protocol No 13](#) on the convergence criteria and [Protocol No 12](#) on the excessive deficit procedure (EDP):

- **price stability:** a sustainable price performance and average inflation rate for one year not higher than 1.5 percentage points (p.p.) above the rate of the three best performing Member States (i.e. with the lowest inflation rate);
- **sound public finances:** at the time of examination, not being subject to an EDP. The criterion thus generally relates to ensuring that national deficit and debt are no more than 3 % and 60 %, respectively, of national gross domestic product (GDP);
- **exchange rate stability:** participation for at least two years in the Exchange Rate Mechanism (ERM), which regulates rates between euro and non-euro members, without severe tensions before the examination; and
- **convergence in long-term interest rates:** the average nominal long-term interest rate not above 2 p.p. of the three best-performing Member States in terms of price stability.

Article 140(1) TFEU also stipulates that the convergence assessment takes into account other factors relevant to economic integration and convergence, which could offer indications of the ability of the country to be part of the euro area without difficulties. Additional factors include: i) market integration, ii) the situation and developments of the balances of payments, and iii) developments in unit labour costs and other price indices.

Furthermore, Member States must meet an additional condition, namely the compatibility of national legislation with the *acquis*. More specifically, this entails:

- independence of the national central bank (NCB) and of the members of its decision-making bodies;
- compliance of national legislation with the prohibition of monetary financing and privileged access; and
- integration of the NCB into the European System of Central Banks (ESCB).

Finally, given the developments in EU economic governance resulting from changes introduced to remedy the shortcomings laid bare by the Great Recession, Member States must also meet a number of institutional conditions. While these criteria do not form part of the official European Central Bank (ECB) and Commission Convergence Reports and do not form part of the Council decisions, Member States wishing to join the euro area must comply with them upon accession (Žáček, 2021). The criteria

require an adaptation of national legislation, fiscal rules or procedures to:

- fulfil the requirements of the Single Supervisory Mechanism (SSM) Regulation;
- fulfil the requirements of the Single Resolution Mechanism (SRM) Regulation;
- transfer the contributions to the Single Resolution Fund;
- provide stability support under the European Stability Mechanism (ESM) Treaty; and
- comply with the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (TSCG).

The rationale behind the Article 140 economic criteria is threefold. First, by containing inflation and converging (low) interest rates, they aim to ensure a stable, growth-friendly and low-inflationary environment. Second, they intend to eliminate the risk of free-riding on excessive expenditure by limiting the size of government debt and budget deficits. Third, the exchange rate stability tests the appropriateness of the level of exchange rate vis-à-vis the other countries (Gros et al., 2009).

In 2004, at the time of the first EU enlargement, a considerable debate emerged around the application of the nominal convergence criteria and the pace of accession of the "New Member States" (NMS) to the euro area. While most governments in the "A10" countries<sup>1</sup> had the explicit goal of fast-tracking the adoption of the common currency, economists were pointing to potential tensions between the fulfilment of the nominal convergence criteria laid down in the Treaties and real economic convergence.

At that time, several analyses underlined the risks associated with early accession to the euro area based on the optimum currency area (OCA) theory<sup>2</sup>. The mobility of factors of production, price and wage flexibility, synchronisation of the economic cycles and symmetric economic shocks, economic openness, diversification in production and consumption, similarity in inflation rates, and fiscal and political integration, which are criteria at the basis of the theory, were considered not to be met by the NMS (nor, in fact, by the other Member States).

Janáčková and Borek (2004) emphasised further risks for NMS emerging from the catch-up process and the rapid real appreciation of the currency, which would result in higher inflation rates. A key long-term cause of the real appreciation was recognised to be the so-called "Balassa-Samuelson effect"<sup>3</sup> triggered by the labour productivity gap between the tradable and non-tradable sectors. The Balassa-Samuelson effect was discussed extensively as a potential source of important implications for the ECB's inflation mandate. Szapáry (2001) and Gros and Hefeker (2002) emphasised the risk of the Balassa-Samuelson effect even if the inflation criterion was met. Similarly, Schadler et al. (2006) argued that the rapid catch-up of the NMS inherently involved risks, whether from the large-scale use of foreign savings, the rapid growth in financial markets and bank intermediation, or simply the rapid pace of economic change.

Mihaljek and Klau (2003) performed some estimates for the non-euro area Central European economies, including Croatia, Czechia, Hungary, Poland, Slovakia and Slovenia, which indicated that the Balassa-Samuelson effect could explain between 0 and 2 p.p. of the inflation differentials in these countries vis-à-vis the euro area per annum. The authors also suggested that, in the presence of a strong Balassa-Samuelson effect, the authorities in EU Member States with fixed exchange rate regimes were more likely to follow restrictive monetary and fiscal policies that would eventually hamper growth

---

<sup>1</sup> These are the 10 countries that joined the EU in 2004, namely Cyprus, Czechia, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia.

<sup>2</sup> Mundell (1961) and the new interpretation in Mongelli (2002).

<sup>3</sup> Balassa (1964); Samuelson (1964).



and employment. By contrast, in countries with flexible exchange rates, the appreciation of the exchange rate could lead to volatile capital inflows and impair competitiveness. Estimates conducted a few years later by the same authors (Mihaljek and Klau, 2008) for the period mid-1990s to early 2008, suggest that the Balassa-Samuelson effect was able to explain around 1.2 p.p. of the inflation differentials between the euro area and its non-euro counterparts, but other relevant factors were also important. According to Égert (2010), the Balassa-Samuelson effect was below 2 p.p. per annum and, often, close to zero during the period from 1997 to 2007. Similarly, Darvas and Szapáry (2008) highlighted the importance of other elements when explaining the pace of price level convergence.

More recently, Consolo et al. (2021) find that, ex post, the Balassa-Samuelson effect was a minor factor explaining the inflation differentials across the euro area Member States, especially after 2010<sup>4</sup>. This seems to point to initial concerns about the effect possibly having been overstated. They argue that the differentials resulted from high (possibly unsustainable) growth in lower income economies, combined with high nominal wage growth and weak productivity. This led to a loss of competitiveness and in some cases large current account deficits. After 2010, the impact of the global financial crisis (GFC) made it necessary to absorb the imbalances and regain competitiveness. As a result, several Member States recorded lower-than-average inflation rates and higher unemployment.

In a similar vein, Darvas (2019) argues that the differences in real convergence may also prove not very relevant nowadays. This can be mainly related to the secular decline of nominal and real interest rates and the similar post-2008 recovery experienced by countries under the euro or fixed exchange rates. In this regard, the good macroeconomic performance of the non-euro area countries, not experiencing any credit boom, shows that with adequate macroeconomic policies, the consequences of low real rates (because of the higher levels of inflation in the accession countries) can be properly managed.

The fact remains, however, that around the mid-2000s, when some NMS started to file their candidature for accession, many commentators voiced fears concerning the premature adoption of the euro. Concerns were often driven by economic considerations like the Balassa-Samuelson effect and uncertainty about the sustainability of nominal (and real) convergence. The group of "early-euro sceptics" included the European Commission and ECB, which explicitly discouraged them from rapid EMU entry ("don't rush" advice). According to Dabrowski (2006), the institutions tried to use all formal opportunities to delay the process. By contrast, the academic community appeared to be split.

Against this debate and despite the Great Recession that followed the GFC, seven NMS adopted the euro between 2006 and 2015.

Interestingly in the debate about EMU accession, besides economics and the fulfilment of the nominal convergence criteria, politics are likely to have played a role. Stressing the political dimension of EMU enlargement, De Grauwe (2009) noted that during the 1990s, the governments of most EU countries had made a strong political commitment to go ahead with monetary union. Their accession had very little to do with economics, and very much to do with politics. At the end of the 1990s, the Member States that had committed to the monetary union were *de facto* failing the accession criteria, but politics prevailed and the Maastricht numbers were set aside.

Based on that experience, politics may also play a role in the current EMU enlargement context. Both the commitment of the candidate countries, which has declined in some of the Member States over the last years, and the support from the current EMU members, which is likely to be affected by the perception about the political stability and credibility of the candidate countries, will be important. In addition, potential considerations about the implications for ECB governance in a monetary union with

---

<sup>4</sup> Even though the effect was widely discussed in the ECB strategy review of 2003.

more than 20 members might also play a role.

The rest of the report is organised as follows. The next section offers an overview of the state of nominal and real convergence. Section 3 looks at the policy response to COVID-19 and what it means for the process of nominal convergence. Section 4 dives into the cases of Bulgaria and Croatia, which are next in line for accession, in addition to a deeper investigation into the state of the economy and the impact of the recent major shocks, COVID-19 and the war in Ukraine. Section 5 looks at challenges to the long-term sustainability of nominal convergence, considering economic and institutional factors. Lastly, Section 6 examines the remaining issues related to legal convergence. Section 7 draws conclusions based on the previous analysis to inform the ECON Committee evaluation on the state of the euro area accession process.

## 2. THE STATE OF NOMINAL AND REAL CONVERGENCE IN NON-EURO AREA COUNTRIES

To provide a comprehensive overview of the impact of COVID-19 on the convergence path of the seven non-euro Member States with a derogation from introducing the single currency, we look at the pre-pandemic state of play and then consider recent macroeconomic developments. This section is organised in two main parts: country performance against nominal convergence (convergence "à la Maastricht") and real economic convergence.

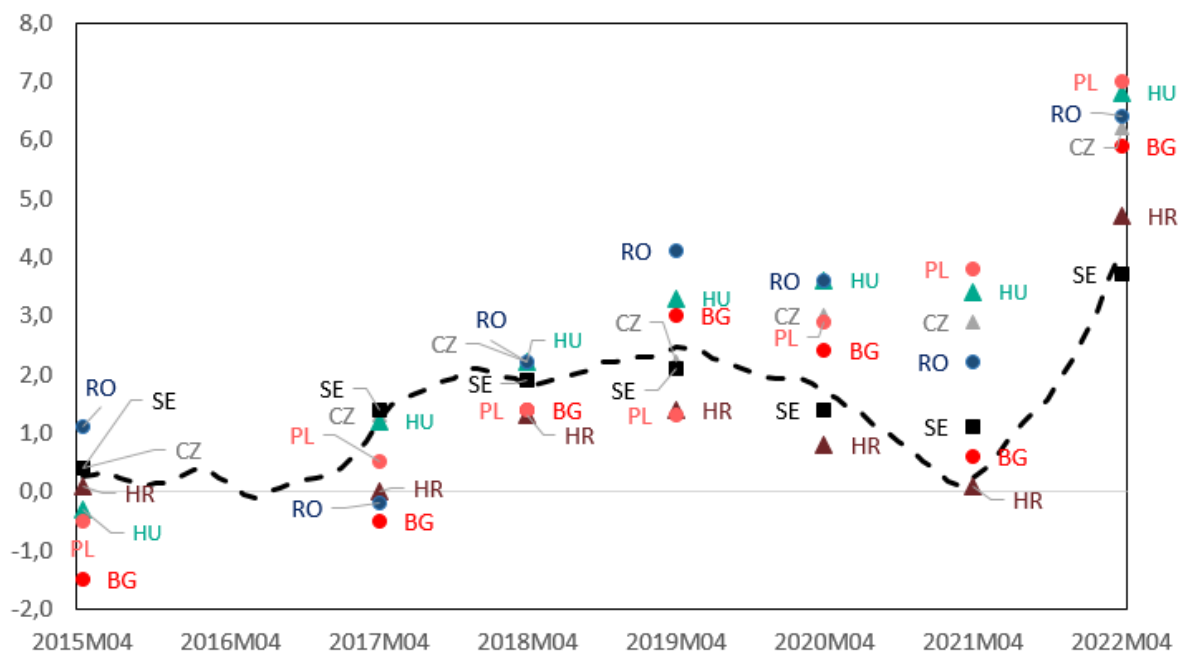
### 2.1. Nominal convergence

This section provides an overview of the recent developments of the four variables relevant to assess the nominal convergence criteria. For each variable, we focus on the extent to which the pandemic has influenced convergence towards the benchmarks.

#### 2.1.1. Price stability

Between 2015 and today, goods prices have undergone large fluctuations (see Figure 1). After years of stability and a couple of years characterised by negative inflation, prices started to increase in 2019, fell in 2020 during COVID-19, and increased again in 2021. Inflation is now at a level not seen in decades. It is worth noting that this is a global trend, not a peculiarity of non-euro area countries.

Figure 1: HICP 12-month average rate of change (%) (April 2015- April 2022)



Source: CEPS calculations based on Eurostat (prc\_hicp\_mv12r).

Note: Convergence path represents the average inflation rate of the three best performing Member States in terms of price stability plus 1.5 p.p. Does not include outlier analysis results.

In 2015 and 2016, Bulgaria, Poland, Romania and Croatia were all facing deflation. Over the course of 2017, however, inflation turned to positive in all non-euro area countries and increased over the following years.

In 2020, the COVID-19 pandemic plunged economies into a deep recession and dampened inflation in almost all EU countries. However, in 2021, inflation rates increased across all of these countries and data from the first months of 2022 indicate an acceleration of this trajectory across the whole of the EU.

Overall, as a result of the pandemic and even more so the recent events in Ukraine, price stability has deteriorated. It is still too early to say whether the impact on prices will be homogenous across countries and to what extent the convergence process will be affected by such major shocks. It is also uncertain how persistent higher prices will be. The only certainty is that in the next months the benchmark inflation rate will be unprecedentedly high. Price developments, at home and in the euro area, are particularly relevant to Croatia and Bulgaria, who are next in line for euro area accession (see Section 4 for an extensive analysis of the two countries).

A general point that should be taken into consideration is that, with the EU made up of 27 members, the benchmark of top performers is likely to be much stricter (even if higher in level) than it was for the initial 11 members in 1999. This is because with an increasing number of countries, it becomes more and more likely that the three best performers are outliers (Gros et al., 2009). Moreover, as we know from the literature, the business cycles in the EU are not perfectly synchronised and, even more often they tend to exhibit different amplitudes<sup>5</sup>. This difference in amplitude of cycle tends to become larger at the peak and trough of the cycle. If because of the war in Ukraine 2022 becomes a trough, the convergence path of Bulgaria and Croatia may be significantly affected. The probability that the benchmark will be driven by outliers and will not necessarily represent the general economic environment is high. Similar considerations apply to long-term interest rates, which typically incorporate inflation expectations.

### 2.1.2. Sound public finances

In 2020, in all seven non-euro area Member States, policy measures to mitigate the impact of the pandemic resulted in a substantial increase in the debt-to-GDP ratio, ranging from 5 p.p. of GDP in Sweden and Bulgaria to 16 p.p. in Croatia. Along with economic recession and a large fall in GDP, a two-digit increase in public debt-to-GDP ratio was also observed in Hungary, Poland and Romania (see Figure 2), but also in the euro area, where the jump was of 14 p.p. of GDP. Despite large increases in all countries, Croatia and Hungary are the only two non-euro area Member States with a debt-to-GDP ratio above the 60 % reference value. Yet, both ratios are still well below the euro area average.

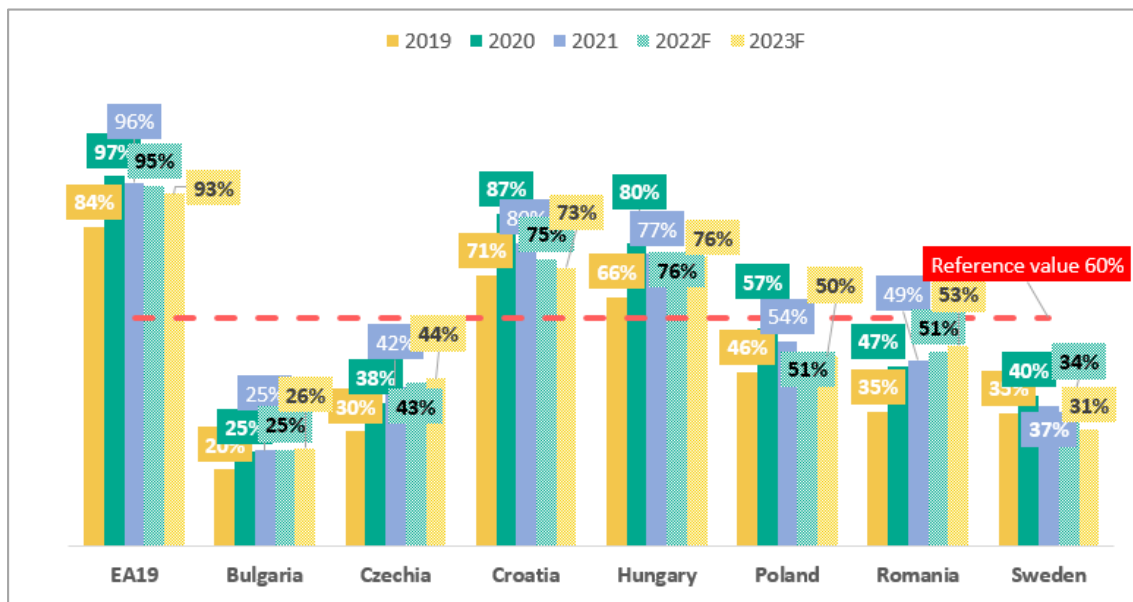
Although in 2021 most countries experienced a substantial economic rebound and high GDP growth, the debt-to-GDP ratio either declined or increased only marginally compared to the preceding year<sup>6</sup>. Overall, debt-to-GDP ratios stayed high and well above their pre-pandemic levels.

Forecasts for 2022 and 2023 suggest that the large surge in debt-to-GDP ratios over the course of the pandemic will gradually recede, but only in Sweden is it expected to decrease to a lower level than before the pandemic. Bulgaria is projected to remain the non-euro area country with the smallest debt-to-GDP ratio, followed by Sweden. In Croatia and Hungary, COVID-19 appears to have brought further challenges to the sustainability of public debt.

<sup>5</sup> See for instance De Grauwe and Ji (2017) and Belke et al. (2017).

<sup>6</sup> This is based on the provisional data of the third quarter of 2021.

Figure 2: General government gross debt (% of GDP)

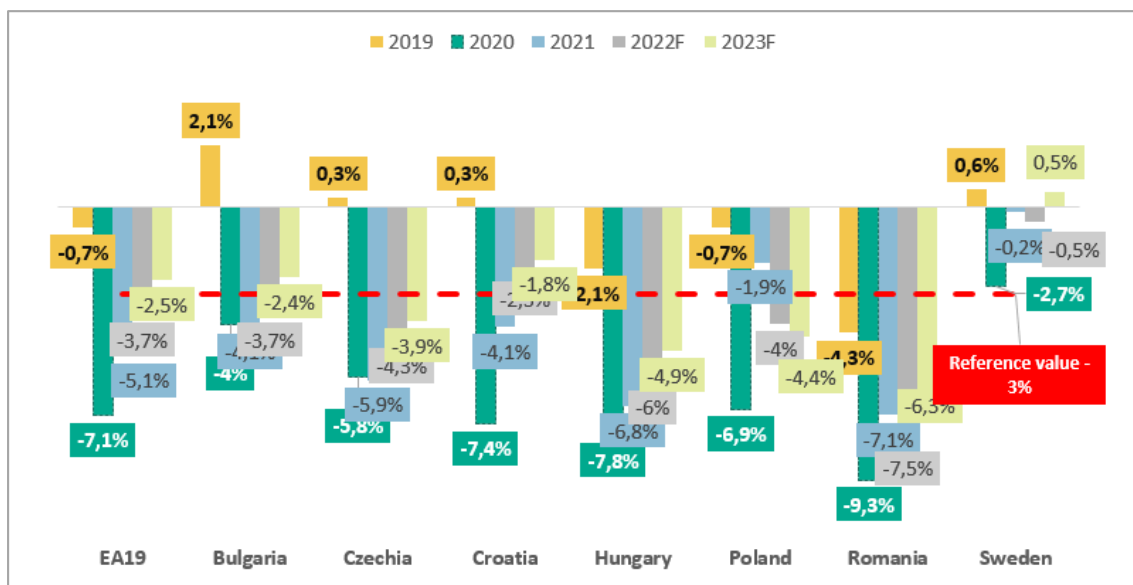


Source: Authors' compilation based on Eurostat and European Commission forecasts spring 2022 (for 2022 and 2023).

The increase in debt during COVID-19 was the result of large, in most cases unprecedented, budget deficits well above the 3 % reference value. Sweden was the only exception, with 2.7 % deficit. In Croatia, Czechia, Hungary, Poland and Romania the deficit was above 5 %.

As the impact of the pandemic abated and GDP recovered in 2021, fiscal deficits started to narrow in most countries and are expected to return to the convergence path. The budget was projected to return to surplus in Sweden. It is worth noting that in response to the recent energy crisis, many governments have put fiscal measures in place to support households. These measures, combined with the slowdown of the economy, are likely to lead to a deterioration of the fiscal balance in most countries.

Figure 3: General government budget balance (% of GDP)



Source: Authors' calculations based on Eurostat and European Commission data.

Note: Forecasts for 2022 and 2023 are based on European Commission forecast spring 2022.

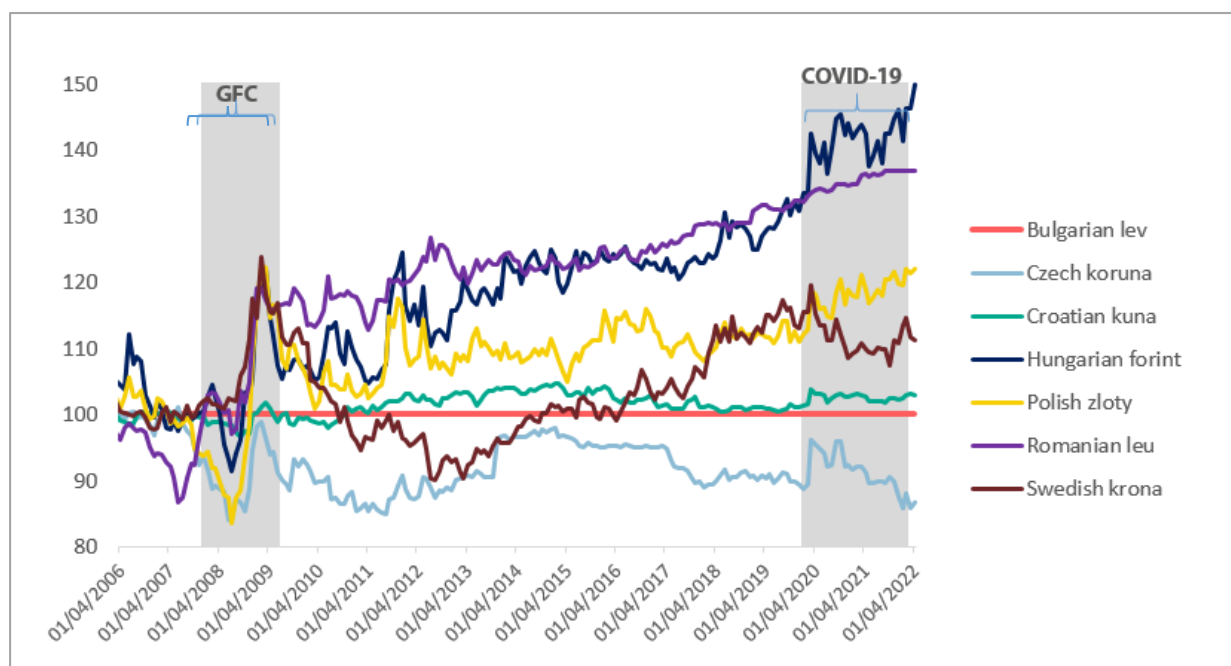
### 2.1.3. Exchange rate stability

After the high volatility of the financial crisis, from 2013 until 2020 the exchange rate vis-à-vis the euro was relatively stable in most non-euro area countries. In Romania, Sweden and Hungary, a depreciation trend was quite clear (see Figure 4). With the onset of COVID-19, the Hungarian forint depreciated rather sharply against the euro, and its value experienced higher fluctuations over the course of the pandemic. During the first quarter of 2020, the Polish zloty started to devalue against the euro, whereas the Swedish krona and Czech koruna regained value. Since the beginning of the pandemic in 2020, the Hungarian forint and Polish zloty have depreciated by around 12 % and 9 % against the euro, respectively, while the fall has been more modest for Romania (3.5 %).

With the start of the war in Ukraine, the trends seen during COVID-19 were reinforced, with further depreciation of the Hungarian forint and the Polish zloty, while the Swedish krona and the Czech koruna appreciated.

The Bulgarian lev and the Croatian kuna joined ERM II in July 2020 and have remained stable (a more detailed description is included in Section 4).

Figure 4: Bilateral exchange rate vis-à-vis the euro (index end of Jan 2006 = 100; monthly data; Jan 2006 – April 2022)



Source: Authors' calculations based on ECB data.

Note: Growing values mean depreciation.

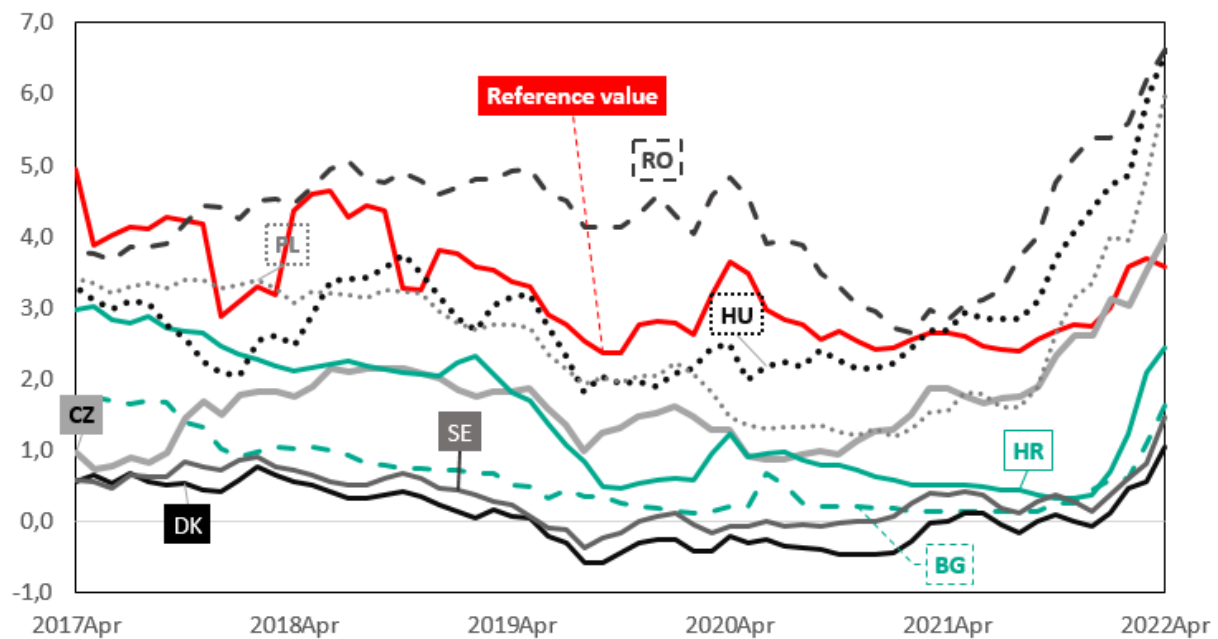
### 2.1.4. Long-term interest rates

Long-term interest rates remained relatively stable, and even on a declining path, until 2020 (Figure 5). At the beginning of 2021, the trend started to change. Long-term interest rates surged quite strongly in Romania, but also in Hungary, Poland and Czechia. By contrast, they remained almost constant in other non-euro area economies.

By the beginning of 2022, the upward trend had become a common feature across all countries. Romania, Hungary and Poland are well above the reference value. Inflation and inflation expectations, in addition to debt sustainability risks, are important determinants of long-term interest rates. In most

of the countries under consideration, upward price developments are likely to weigh on interest rate developments.

Figure 5: Long-term interest rates (%) (April 2017–April 2022)



Source: CEPS calculations based on ECB data.

Note: Reference represents the long-term interest rate of the three best performing Member States in terms of price stability plus 2 p.p.

The overall picture suggests that the process of nominal convergence has been somewhat deteriorating since 2020. Yet, for a number of variables, it is more an amplification of pre-existing trends, rather than a change in trend, associated with the pandemic. The start of the war in Ukraine appears to have affected particularly price stability. Growing energy and food prices are leading to higher inflation across all of the EU, but especially in Eastern non-euro area Member States, making it more difficult for them to meet the price stability criterion.

## 2.2. Real convergence

Real convergence is neither a legal precondition<sup>7</sup> for accessing the euro area, nor an economic one for the functioning of the monetary union. Nevertheless, it is certain that achieving a higher level of output levels accompanied by convergence of economic structures would make it easier to manage the euro area. At the same time, a prolonged divergence could harm the sustainability of the euro. For this reason, monitoring real convergence is an important evaluation exercise beyond the legal requirements.

Convergence is typically measured through the concept of beta and sigma convergence applied to GDP per capita and potentially to other indicators.

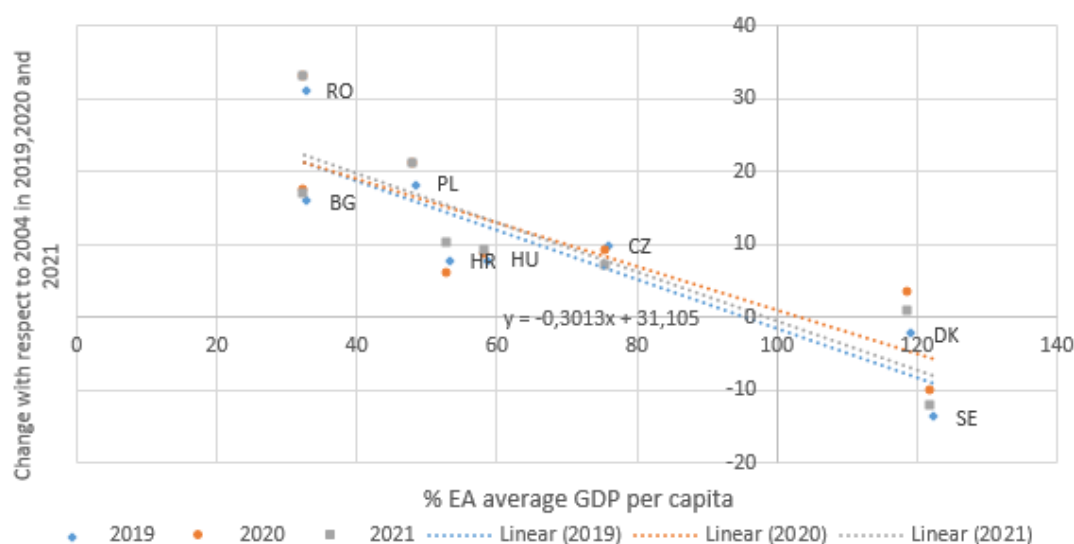
Beta convergence is used to measure whether countries starting from initially low performance levels grow faster than better performing countries, i.e. whether a catch-up process is in place. In the context of assessing the state of real convergence of non-euro area countries, it is interesting to examine the

<sup>7</sup> In fact, considering real convergence a prerequisite would not be compatible with the Treaty.



catch-up progress of individual non-euro area Member States relative to the euro area average.

Figure 6: Beta convergence: GDP per capita convergence in non-euro area countries relative to euro area average



Source: Authors' calculations based on Eurostat.

The negative slope of the lines in Figure 6 points to a strong GDP per capita convergence of non-euro area countries towards the euro area average. The comparison of different time period, up to before the pandemic (2019), up to the pandemic (up to 2020) and then up to 2021, suggests little difference in the catch-up process. The pandemic slightly flattened the curve, indicating a lower speed of convergence, but the inclusion of 2021 brings the curve back to exactly the same slope, hence the same speed of convergence. The reason behind this pattern is illustrated in Figure 7.

Figure 7: Changes in GDP per capita, 2020 and 2021



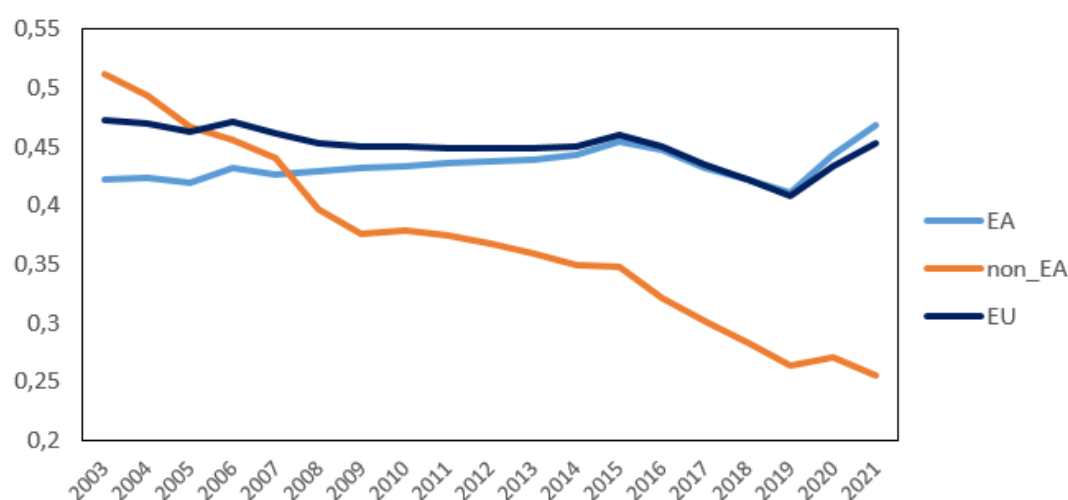
Source: Authors' calculations based on Eurostat.

For non-euro area countries, the rebound in growth in 2021 was much larger than the fall in 2020, and greater than the recovery in the euro area average.



To complement beta convergence, sigma convergence captures the overall reduction or increase in disparities among countries over time. It can be used to examine whether COVID-19 has altered previous trends, and more generally dispersion within the group of euro area countries, non-euro area countries, and the EU, respectively. Figure 8 suggests that dispersion has substantially declined in the non-euro area group, while it has remained broadly stable, with a slightly declining trend between 2015 and 2019, both in the EU and in the euro area. COVID-19 brought it back to the levels of the Great Recession in 2015.

Figure 8: Sigma convergence: coefficient of variation, euro area, non-euro area and EU

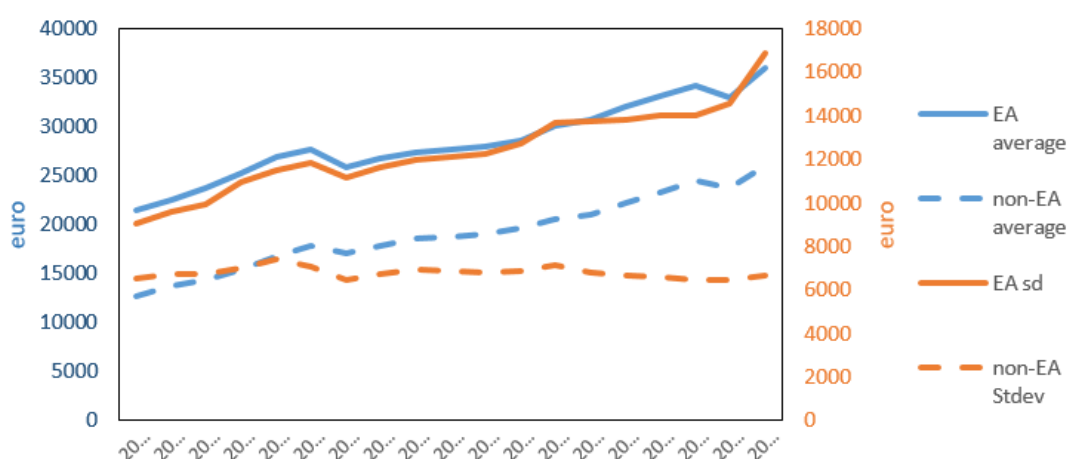


Source: Authors' calculations based on Eurostat.

Note: Coefficient of variation is defined as standard deviation normalised by the mean.

Figure 9, which illustrates the behaviour of the averages and the standard deviation in income per capita, suggests that the standard deviation drove down sigma convergence.

Figure 9: GDP per capita average (LHS) and standard deviation (RHS) in the euro area and non-euro area group



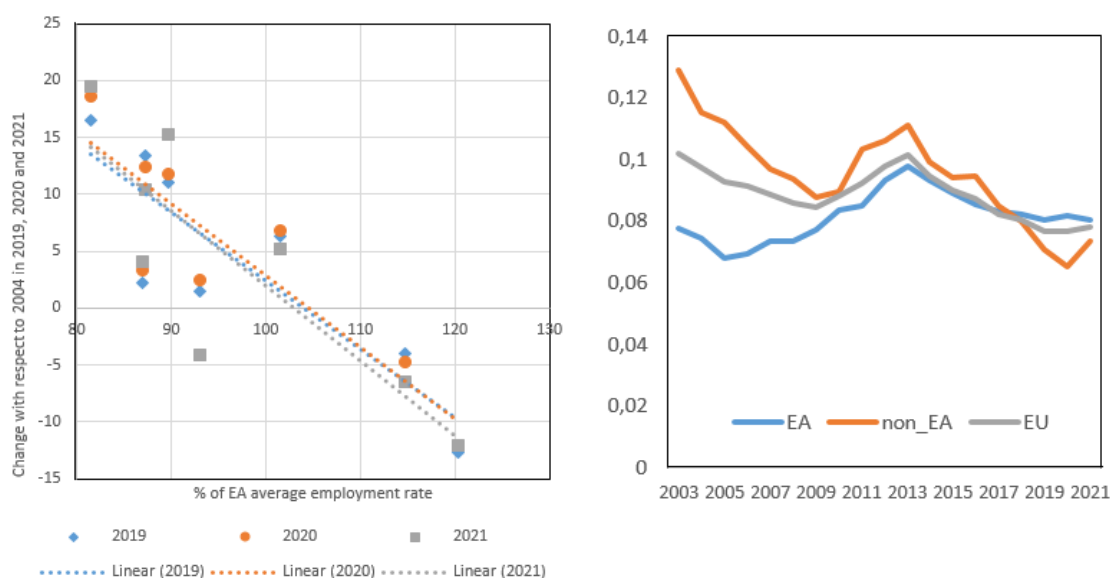
Source: Authors' calculations based on Eurostat.

Note: Standard deviation is measured on the left-hand axis.

While averages have gone hand in hand in the two groups, the standard deviation increased quite substantially in the euro area, whereas it remained stable in non-euro area countries.

In order to gain more insights on real convergence, in addition to real GDP we also consider whether there has been convergence in employment rates. Figure 10 suggests that non-euro area countries starting with a lower level of employment were able to catch up significantly, and the relative dispersion (coefficient of variation) within the group of non-euro area countries declined substantially to become lower than in the euro area (and the EU). This was the result of a declining standard deviation, but above all a strong increase in the average, hence pointing to upward convergence.

Figure 10: Employment rates: beta convergence (left panel) sigma convergence (right panel)



Source: Authors' calculations based on Eurostat.

Note: Sigma-convergence is measured by the coefficient of variation, i.e. standard deviation divided by the mean.

Overall, both GDP per capita and employment suggest that real convergence has been happening and that non-euro area Member States, especially NMS, have made significant progress in catching up with the euro area average. It also appears that COVID-19 has not halted this pattern. It is worth mentioning that since the financial crisis, the poor performance of southern Member States has impacted the euro area average, making the catch-up of non-euro area Member States somewhat easier.

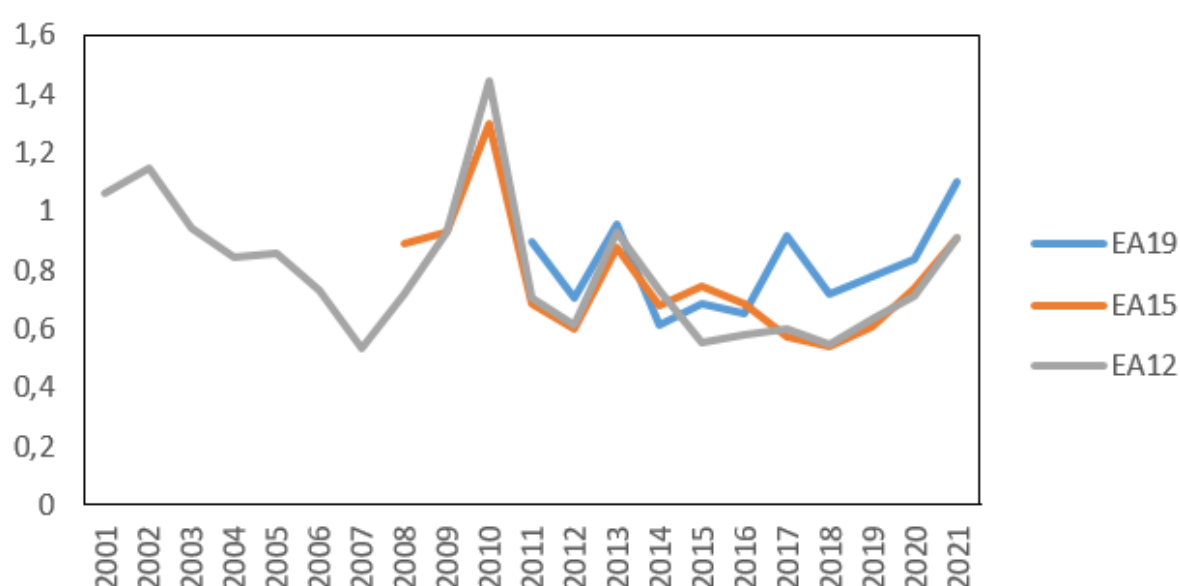
### 2.2.1. Price convergence and the Balassa-Samuelson effect

As mentioned in the introduction, the Balassa-Samuelson effect was expected to play an important role in affecting price dynamics in the new countries joining the monetary union. According to the Balassa-Samuelson effect, a rise in productivity in the traded sector is likely to increase wages in this sector, but since the increase in wages is coupled with increased productivity, it will not lead to higher prices for traded goods and services. However, as non-traded sectors are generally more labour-intensive than traded sectors, on the assumption of free labour mobility across sectors, wages in the non-traded sectors will tend to rise as well and will push the prices up in the non-traded sectors (Balassa, 1964; Samuelson, 1964). If this hypothesis is verified, NMS, which typically have lower productivity in the traded sector, may be faced with inflationary pressures, while monetary policy is set for the whole union.

Consolo et al. (2021) investigate the drivers of price differentials during the first 20 years of the monetary union, first by testing the assumption that price levels are correlated with GDP per capita. They find this was clearly the case in 1999. Then they ask whether membership led to convergence in price differentials through the removal of the exchange rate and the increase in intra-euro area trade. Based on the Balassa-Samuelson effect, the expectation was that the convergence in price levels would start with the prices of tradables, followed by the prices of non-tradables. However, when looking at developments in GDP per capita and prices in the "euro area-12", they do not find evidence of such convergence process or sequencing. Nominal convergence in the EMU appears limited, whereas real GDP per capita convergence was neither significant nor sustainable.

Against these findings, we start from a similar assumption and extend the approach of Consolo et al. to examine whether this conclusion holds true when adding the seven countries<sup>8</sup> that joined the monetary union between 2007 and 2015. As shown in Figure 11, dispersion in prices did not decline over time; in fact, it increased in the last years of the sample and in particular during COVID-19.

Figure 11: Inflation dispersion (p.p.)



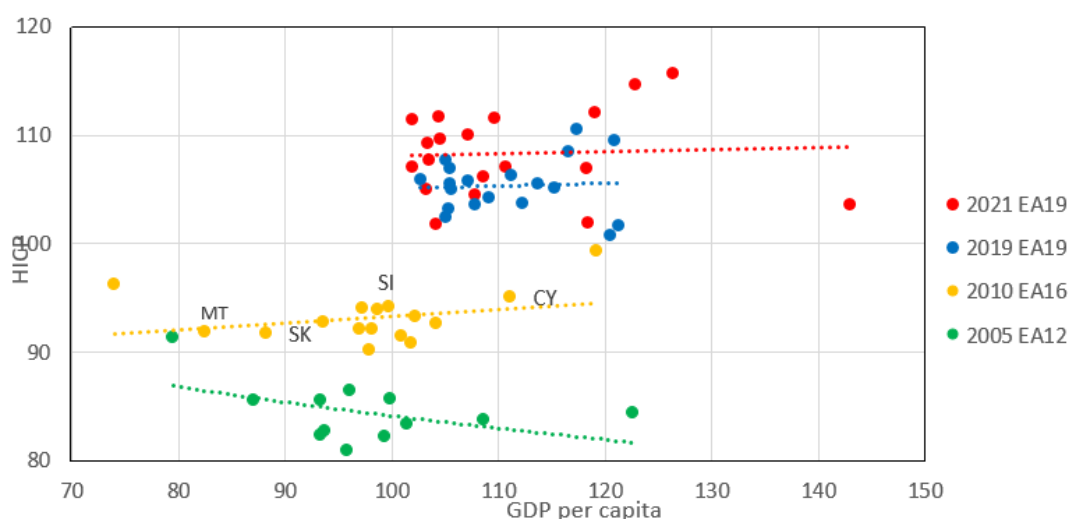
Source: Authors' calculations based on Eurostat.

Note: Dispersion is measured by standard deviation in inflation.

Interestingly, the starting assumption of Consolo et al. does seem to be verified for other accessions. In most cases, NMS had real GDP per capita lower than the euro area average, but price levels were in line with or even higher than the average. As illustrated in Figure 12, the relationship between real GDP per capita and the price index is very weak, and negative in 2005. The same holds for the different years considered. The last available year, 2021, exhibits the largest dispersion in prices.

<sup>8</sup> Slovenia (2007), Cyprus (2008), Malta (2008), Slovakia (2009), Estonia (2011), Latvia (2014) and Lithuania (2015).

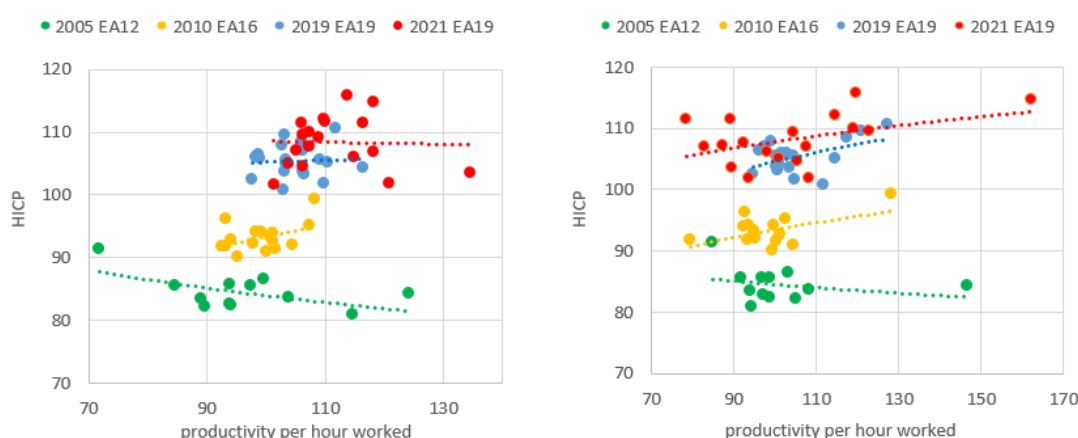
Figure 12: Relationship between real GDP per capita and price levels (index value 2015 = 100)



Source: Authors' calculations based on Eurostat.

When looking at sectoral developments to examine the potential sequencing (hence the Balassa-Samuelson effect) in price developments, in the tradable sector price levels do not seem related to productivity developments. Overtime, the main visible change is that the (weak) negative relationship turns into a weak positive one. In the case of the non-tradable sector, the same evolution holds and is more marked, pointing to higher price levels associated with higher productivity in the sector. The chart also shows a very large productivity differential in 2021, probably because of the pandemic-induced recession, which hit non-tradable services hardest.

Figure 13: Relationship between labour productivity and price levels, tradeable (left panel) and non-tradable (right panel) (index value 2015 = 100)

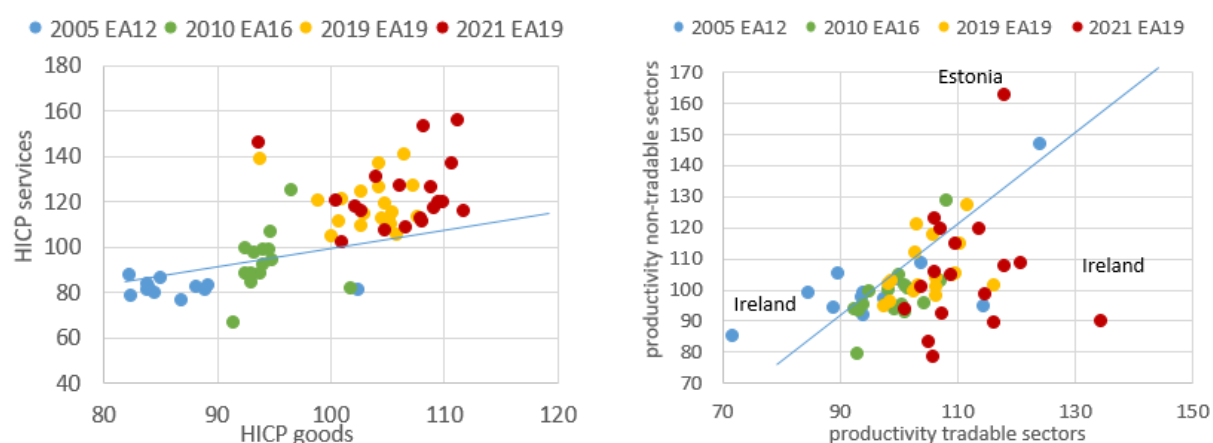


Source: Authors' calculations based on Eurostat.

Note: Following the Organisation for Economic Co-operation and Development (OECD, Regional Outlook 2016), tradable sectors to comprise: agriculture, industry (including mining and quarrying, manufacturing, electricity, gas, steam and air conditioning supply, water supply, sewerage, waste management and remediation activities), information and communication services, financial and insurance activities, and other services. Non-tradable sectors are composed of: construction, wholesale and retail trade, repair of motor vehicles and motorcycles, transportation and storage, accommodation and food service activities, and administrative and support services.

In order to better understand what these findings mean, Figure 14 (left panel) plots prices in services (which are often taken as a proxy for non-tradable, though this does not correspond to the definition of non-tradable used above) against prices in goods. It suggests that while until 2016, price levels of goods were in many cases higher than those of services, in 2019 and 2021 (yellow and red dots) the opposite is true for all countries: the price index of services is systematically higher than that of goods. A similar chart, plotting labour productivity in the non-tradable against the tradable sector, points to a different picture. The index of productivity in the non-tradable sector is lower than the one in the tradable sector for most countries, especially after 2016. The year 2021 exhibits the highest dispersion in productivity in both sectors. This seems to say that after 2016, the non-tradable sector experienced higher productivity and prices than the tradable sector (assuming goods prices are a proxy).

Figure 14: Evolution of price (left panel) and productivity levels (right panel) across sectors (index value 2015 = 100)



Source: Authors' calculations based on Eurostat.

Overall, these observations imply that no strong price convergence has occurred since 1999 and that there is no robust relationship between productivity and price development in the euro area. Similarly, there is no strong evidence of the Balassa-Samuelson effect, which was expected to be a strong driver of inflation. As highlighted in Consolo et al. (2021), inflation differentials during the first decade of the euro were mainly driven by economic and financial imbalances, rather than the Balassa-Samuelson effect. In addition, the second decade of the euro was characterised by a low-inflation environment with limited development in prices, which seem independent of productivity development in either sector. The beginning of the third decade of the euro may mark the start of a different era, where risks associated with the Balassa-Samuelson effect, imbalances or low inflation environment have left a place for risk of high inflation, driven by external shocks.

### 3. EU RESPONSE TO COVID-19: EFFECTS ON CONVERGENCE

To mitigate the negative impacts of COVID-19, EU Member States adopted almost 1,300 fiscal measures committing about EUR 3.5 trillion<sup>9</sup> in 2020 (Alcidi and Corti, 2022). As will be shown in greater detail below, if one excludes Denmark, on average national responses in the non-euro area Member States were smaller than in the euro area.

However, national governments have not walked alone, and European action has been significant since the outbreak of the pandemic. The overall response to COVID-19 revolved around three pillars:

- monetary and banking policies (for euro area countries);
- state aid and fiscal rules; and
- budgetary and financial support measures.

#### 3.1. ECB monetary policy response

Most ECB interventions were adopted already in March 2020, in the very early stages of the pandemic, and were successively extended in the following months. The swift action on the monetary front was then complemented by measures to incentivise banks to lend. Overall, the ECB monetary policy response was concentrated along four main axes, namely:

- keeping key interest rates unchanged (main refinancing operations: 0.00 %; marginal lending facility: 0.25 %; deposit facility: -0.50 %);
- long-term refinancing operations aimed at supporting bank lending (especially to small and medium-sized enterprises [SMEs]) and the smooth functioning of money market funds (by providing a liquidity backstop). Two measures need to be mentioned: i) the reduced interest rate for Targeted Longer-Term Refinancing Operations (TLTRO III) outstanding operations, and ii) the introduction of a new series of non-targeted Pandemic Emergency Longer-Term Refinancing Operations (PELTRO);
- collateral policy like the temporary increase in the Eurosystem's risk tolerance to support credit to the economy, easing the conditions for the use of credit claims as collateral (guaranteed loans to SMEs and the self-employed), the waiver to accept Greek sovereign debt instruments as collateral in Eurosystem credit operations, and the general reduction of collateral valuation haircuts of 20 %; and
- asset purchases programmes, such as the ECB's new Pandemic Emergency Purchase Programme (PEPP) of EUR 750 billion, which was increased to EUR 1,350 billion on 4 June 2020, and to EUR 1,850 billion on 10 December. In addition, net purchases under the Asset Purchase Programme (APP) at a monthly pace of EUR 20 billion were extended, and a temporary envelope of additional net asset purchases of EUR 120 billion was introduced until the end of 2020.

From the point of view of non-euro area Member States, the asset purchase programme is the most relevant of the ECB measures. While literature is scant on the impact of the PEPP, findings related to non-standard monetary<sup>10</sup> measures adopted by the ECB since 2015 suggest that countries outside the euro area (in particular south-eastern European countries) experienced some positive effect on prices

<sup>9</sup> This amount includes guarantee schemes that in the end were not activated.

<sup>10</sup> See for instance Moder (2019).

and, in some cases, also on output, mostly driven by trade channels. A similar kind of impact should be expected from the PEPP. In that period, the exchange rate regime did not seem to be an important factor, as all exchange rates remained quite stable. It is difficult to say whether this would hold also now given that volatility has increased quite a lot since 2020.

In addition to measures directed towards the euro area countries, in order to avoid market disruptions, the Eurosystem established liquidity arrangements with several non-euro area central banks, including bilateral swaps, repo lines and the newly created Eurosystem repo facility (EUREP) for central banks. These measures were particularly important for some non-euro area Member States.

The Eurosystem's swap and repo lines<sup>11</sup>, which were used extensively during the financial crisis and work as monetary policy instruments, were offered to Croatia, Romania, Hungary, Bulgaria and Poland (see Table 1) and consisted of providing euros to non-euro area central banks (in exchange for foreign currency) to address euro liquidity needs in case of financial stress.

Table 1: Provision of euro liquidity through ECB swap and repo operations in non-euro area Member States during COVID-19 pandemic

Country	Counterpart	Type of facility	Publication date	Maturity date	Maximum amount	Maximum length of drawings
Croatia	Central Bank of Croatia	swap	15/04/2020	31/12/2020	EUR 2 bn	3 months
Croatia	Central Bank of Croatia	swap extension	28/08/2020	30/06/2021	EUR 2 bn	3 months
Croatia	Central Bank of Croatia	swap extension	02/04/2021	31/03/2022	EUR 2 bn	3 months
Romania	National Bank of Romania	repo	05/06/2020	31/12/2020	EUR 4.5 bn	3 months
Romania	National Bank of Romania	repo extension	28/08/2020	30/06/2021	EUR 4.5 bn	3 months
Romania	National Bank of Romania	repo extension	02/04/2021	31/03/2022	EUR 4.5 bn	3 months
Hungary	Central Bank of Hungary	repo	23/07/2020	30/06/2021	EUR 4 bn	3 months

<sup>11</sup> Bilateral swap and repo lines can only be agreed upon by the ECB's Governing Council, under certain conditions on a case-by-case basis. Some ECB swap agreements have no end date (although they can be terminated at any time), while other arrangements have a predefined but extendable end date. For more details see ECB, Central Bank Liquidity Lines: [https://www.ecb.europa.eu/mopo/implement/liquidity\\_lines/html/index.en.html#:~:text=The%20euro%2Dproviding%20swap%20and,of%20the%20ECB's%20monetary%20policy%20](https://www.ecb.europa.eu/mopo/implement/liquidity_lines/html/index.en.html#:~:text=The%20euro%2Dproviding%20swap%20and,of%20the%20ECB's%20monetary%20policy%20).

Country	Counterpart	Type of facility	Publication date	Maturity date	Maximum amount	Maximum length of drawings
Hungary	Central Bank of Hungary	repo extension	02/04/2021	31/03/2022	EUR 4 bn	3 months
Hungary	Central Bank of Hungary	repo extension	28/3/2022	15/1/2023	EUR 4 bn	3 months
Poland	National Bank of Poland	swap	28/3/2022	15/1/2023	EUR 10 bn	-
Bulgaria	Bulgarian National Bank	swap	22/04/2020	31/12/2020	EUR 2 bn	3 months

Source: Albrizio et al. (2021) and ECB press releases.

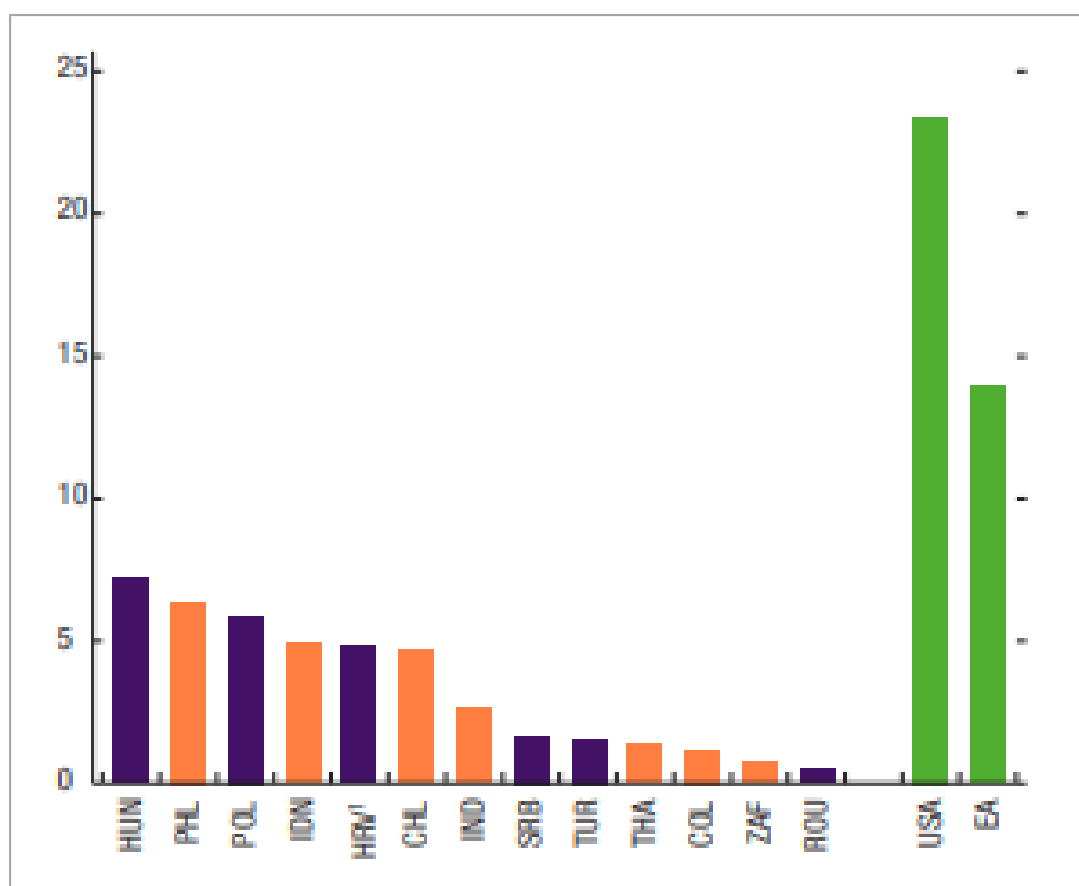
The ultimate objective was to prevent feedback effects that could negatively impact the ECB's monetary policy transmission mechanisms and lead to financial stability risks. In addition to these instruments, EUREP was established in June 2020 as a temporary (until 15 January 2023) and precautionary facility in the context of the pandemic, with the aim of broadening access to the Eurosystem's liquidity arrangements beyond the swap and repo lines. EUREP allows non-euro area central banks to access euro liquidity against euro-denominated marketable debt securities issued by euro area central governments and international institutions (Panetta and Schnabel, 2020). It is currently being used in response to the uncertain environment caused by Russia's invasion of Ukraine.

Indeed, in March 2022, the ECB set up a EUR 10 billion precautionary swap line with the Central Bank of Poland to provide euro if needed. In the wake of the Russian invasion of Ukraine, the Polish zloty (as well as the Hungarian forint) has faced significant sell-off, resulting in depreciation. The euros available to the central bank can be used to defend the currency. Repo agreements with Hungary were also extended.

In view of financial outflows and surging pressure on bond yields following the outbreak of the pandemic in March 2020, central banks in European emerging markets including Croatia, Hungary, Poland and Romania also adopted APPs. Croatia, Hungary and Poland implemented a relatively larger scale of APPs, up to 5 to 7 % of GDP (see Figure 15).



Figure 15: Asset purchases by central banks during the pandemic (% of 2020 GDP), end-Feb 2020 to end-June 2021



Source: [International Monetary Fund \(IMF, 2021\)](#), Figure 2, p. 7.

This is significantly smaller than in the euro area, however. In addition, the programmes were quite short and the bulk of the purchases happened in 2020, the only exceptions being Poland and Romania, which made a few additional purchases in 2021.

It is interesting to note that, if Croatia were to enter the Eurosystem as expected in January 2023, it would hold a much lower share of sovereign bonds than the other Eurosystem banks. This is also true for the central banks of countries like Estonia, whose stock of sovereign debt is very small but which participated in the PEPP. When the decision is made to sell the securities held for monetary policy purposes in the balance sheets of the central banks, the question will emerge of what this implies for Croatia. Because the amount is limited, it is not a source of concern, but there may be a case for different treatment in the case of Croatia.

### 3.2. Easing the way for national fiscal policies

While the monetary and banking measures were adopted smoothly and rapidly, on the fiscal side the EU response was slower. The first step of the EU fiscal response was directed at facilitating the *national* fiscal response. In the immediate follow-up to the pandemic outbreak, the Commission was fast to enact two important decisions:

- introduction of a temporary framework for state aid; and
- activation of the general escape clause of the Stability and Growth Pact (SGP).

### 3.2.1. Temporary state aid framework

The temporary state aid framework was adopted on 19 March 2020 (based on Article 107 TFEU) by the Commission. Initially, the temporary framework allowed for five types of intervention in the context of the pandemic crisis, such as grants or tax advantages of up to EUR 800,000 to a company in liquidity emergency, state guarantees for loans taken from banks by companies, subsidised public loans to companies with advantageous interest rates, specific safeguards for banks that channel state aid to the real economy and short-term export credit insurance.

In a first amendment to the framework on 3 April 2020, the Commission allowed two additional types of aid:

- targeted support in the form of deferral of tax payments and/or suspensions of social security contributions; and
- targeted support in the form of wage subsidies for employees (i.e. short-time work schemes).

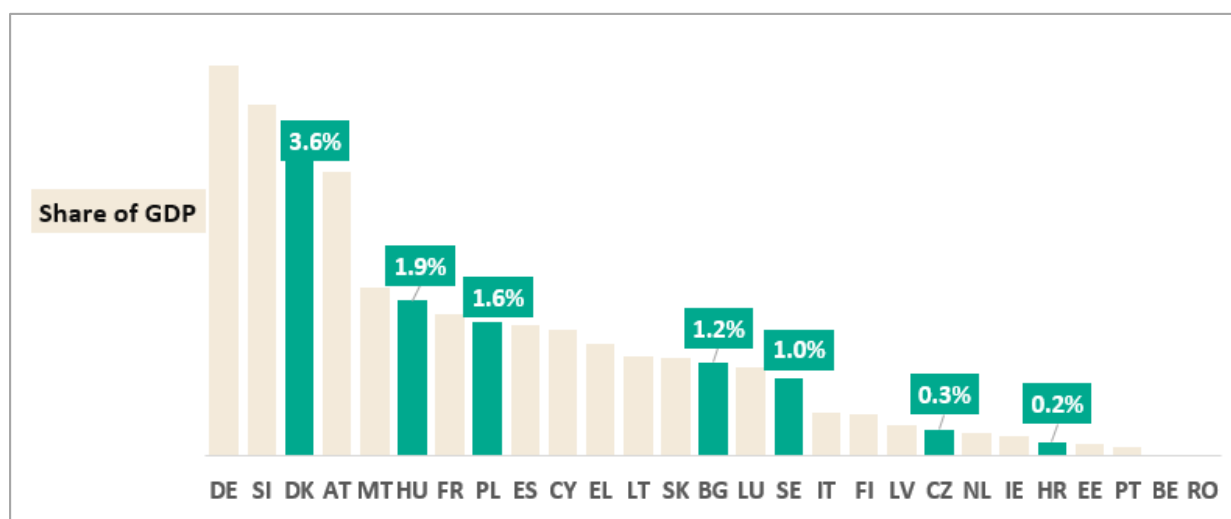
A second amendment was introduced on 8 May 2020 to enable targeted public intervention in the form of recapitalisation aid to non-financial companies in need. With the deepening of the crisis, several European businesses that were healthy before the COVID-19 outbreak experienced losses that decreased their equity and reduced their ability to borrow on the markets. The aim of the Commission intervention was therefore to facilitate recapitalisation on the condition that beneficiaries and Member States develop an exit strategy following recapitalisation. Moreover, beneficiaries were subject to bans on dividends and share buybacks.

Finally, a third amendment to the temporary framework was adopted on 29 June 2020 to enable Member States to provide public support to all micro and small companies, i.e. undertakings with fewer than 50 employees and less than EUR 10 million of annual turnover and/or annual balance sheet total, even if they were already in financial difficulty on 31 December 2019. This amendment also adapted the conditions for recapitalisation measures under the temporary framework for those cases where private investors contributed to the capital increase of companies together with the state. The aim was to encourage capital injections with significant private participation in companies, limiting the need for state aid and the risk of competition distortions.

In 2020 alone, Member States adopted EUR 2.3 trillion worth of fiscal measures under the temporary framework (Alcidi and Corti, 2021). Most state aid measures consisted of guarantees, making up 82 % of the total measures allowed. The remaining measures were spread between discretionary expenditure, such as short-time work schemes, household or business income support measures (6 %), financial instruments (8 %) and discretionary revenue measures (3 %). In absolute terms, among the non-euro area countries, Poland (12 %) and Hungary (11 %) ranked first, while measures in Romania and Bulgaria amounted to only 1.47 % and 1.33 % of GDP, respectively.

Since the impact of guarantees on the national budget only materialises when the debtor is not able to pay back the loan received, then the use of guarantees could paint a misleading picture of the Member States' relative budgetary efforts. Focussing only the temporary state aid framework for discretionary measures, it appears that among the non-euro area countries the first three are Denmark (3.6 %), Hungary (1.9 %) and Poland (1.6 %) (see Figure 16).

Figure 16: Discretionary fiscal measures under the temporary state aid framework (% GDP)



Source: CEPS compilation based on EC ([here](#) and [here](#)).

State aid control is a critical part of EU competition policy that aims to avoid distortions on the internal market and to ensure a level playing field between Member States and companies. Therefore, the suspension of rules under the temporary framework is likely to have impacted the convergence trajectories of non-euro area countries. However, the longer-term repercussions remain unclear. With a lack of comprehensive follow-up data on the actual uptake of guarantees – which, as noted above, constitute most of these measures – it is impossible to establish a clear picture of the overall support provided by Member States. In general, however, it can be noted that Member States with larger fiscal capacity spent more on aid to national companies, giving them an edge against their European competitors (Agnolucci, 2022).

The use of discretionary measures gives some indication of the geographical distribution of state aid support, and could allow partial conclusions to be drawn on the main beneficiaries of these measures. In this respect, there does not seem to be a clear pattern along the often-observed geographical dividing lines (North-South, East-West) nor with regard to the pre-COVID-19 debt burden. This remains true for the non-euro area Member States too. Looking at the two Nordic countries with relatively low levels of debt, Denmark introduced the highest volume of measures in this group, but Sweden (at 1 % of GDP) ranks only fifth in this respect.

An important point of debate regarding the suspension of state aid rules concerns the extent to which the rules allow non-viable "zombie" firms to be kept afloat. Although there are some positive assessments at country level (e.g. Groenwegen et al., 2021), further research would be needed to analyse distortionary effects on the market. Sectoral studies on the impact of the temporary framework provide anecdotal evidence that indicate discrepancies in aid implementation across Member States. Martin-Domingo and Martin (2022) provide an example from the airline industry by showing how government involvement is expected to have an important influence on the level playing field. The study indicates that the largest EU economies (Germany and France), as well as some Northern European countries, supported national airlines more extensively, and that airlines with weaker financial performance before the pandemic were more likely to receive state aid. Agnolucci (2022) finds evidence of potential market distortions linked to research, development and innovation (RDI) aid. While such support has generally served as a tool for Member States to counteract the effects of the health crisis, some countries have also granted ad hoc aid to companies engaged in research not linked to COVID-19.

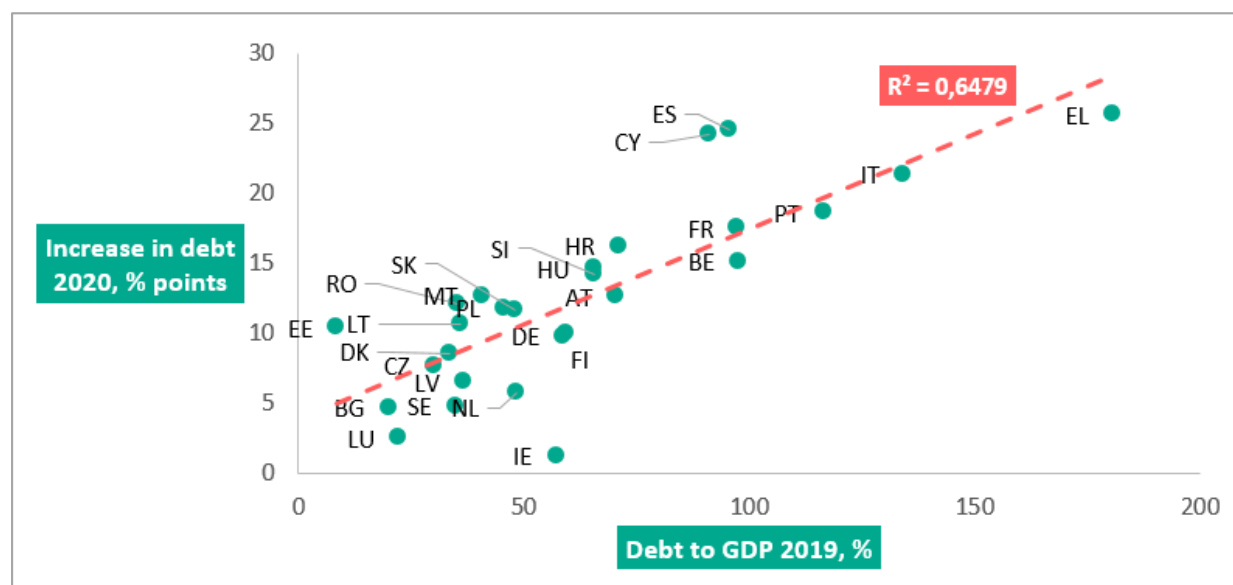
### 3.2.2. Activation of the general escape clause

The "general escape clause" of the SGP (COM(2020) 123 final)<sup>12</sup> was activated by the Commission with the stated aim of giving Member States the flexibility required to take the measures necessary to support health and civil protection systems and to protect their economies. The clause allows EU governments to temporarily depart from their adjustment path towards the medium-term budgetary objective. It also affects the application of the European Semester considerably, i.e. the framework for the coordination of economic policies across the EU. The country-specific recommendations released on 20 May 2020 – the first time since the creation of the European Semester – focused on two objectives:

- providing an immediate economic policy response to tackle and mitigate the health and socio-economic impact of COVID-19 (short term); and
- restarting economic activity and putting growth back on track, supporting the green transition and digital transformation (short to medium term).

The relaxation of the fiscal rules was particularly critical for those Member States with high levels of debt-to-GDP<sup>13</sup>. The importance of room for fiscal manoeuvre for the more indebted Member States is evidenced by the strong correlation between their debt-to-GDP ratio in 2019 and percentage point increase over 2020 (see Figure 17).

Figure 17: Increase in debt levels in 2020 and pre-COVID-19 debt burden



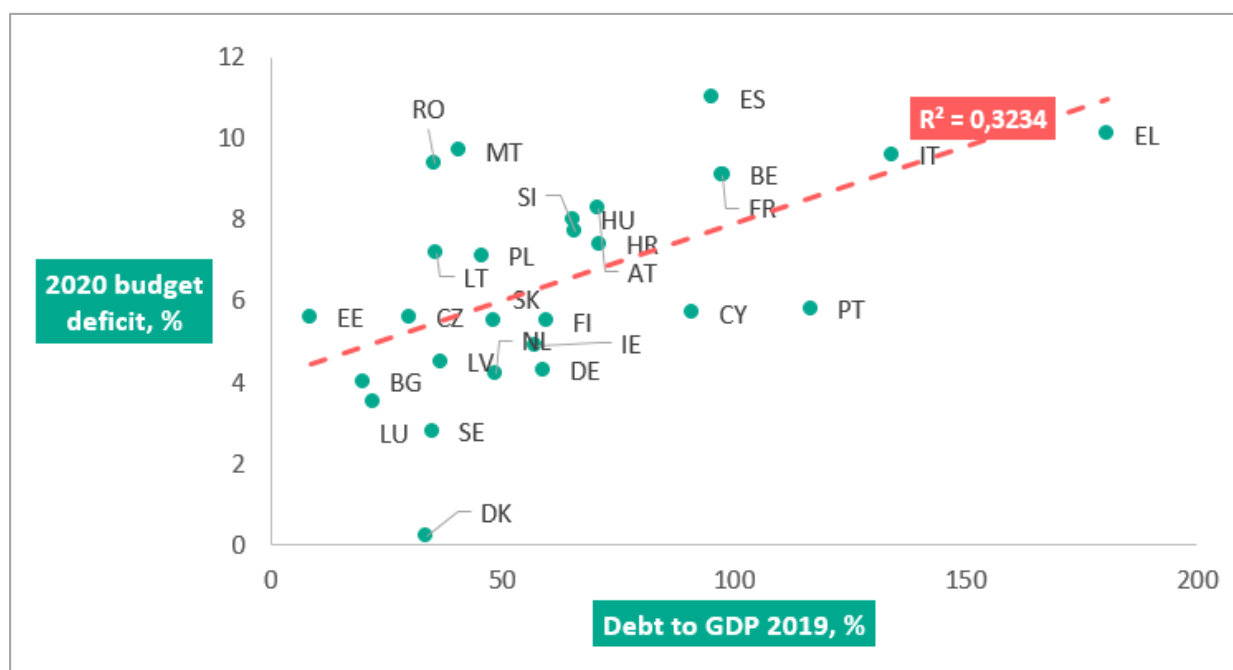
Source: CEPS compilation of Eurostat data.

This can be explained by the combined effects of the GDP contraction, particularly large in countries with high debt, and the simultaneous increase in deficit levels (see Figure 18).

<sup>12</sup> Based on Articles 5(1), 6(3), 9(1) and 10(3) of Regulation (EC) 1466/97 and Articles 3(5) and 5(2) of Regulation (EC) 1467/97.

<sup>13</sup> Spain, Italy and Greece, which had the highest levels of debt in 2019, experienced an increase above 20 p.p., larger than the euro area average of 15.

Figure 18: Budget deficits and debts



Source: CEPS compilation of Eurostat data.

Interestingly, non-euro area countries, which had relatively low starting debt-to-GDP levels in 2019, experienced; on average, a smaller increase in their debt levels than the euro area. However, the size of the fiscal response appears very heterogeneous across them. Bulgaria, Denmark and Sweden ran some of the lowest deficits in the EU; Poland and Croatia performed close to the euro area average; while Romania was well above this value.

### 3.3. Tackling the immediate effects of the pandemic: budgetary and financial support measures

As a second step, the Commission intervened by designing EU-level support to aid Member States directly in their fiscal effort, by introducing three ad hoc measures:

- Coronavirus Response Investment Initiative (CRII and CRII+);
- European Investment Bank (EIB) initiatives; and
- SURE.

#### 3.3.1. Coronavirus Response Investment Initiative (CRII and CRII+)

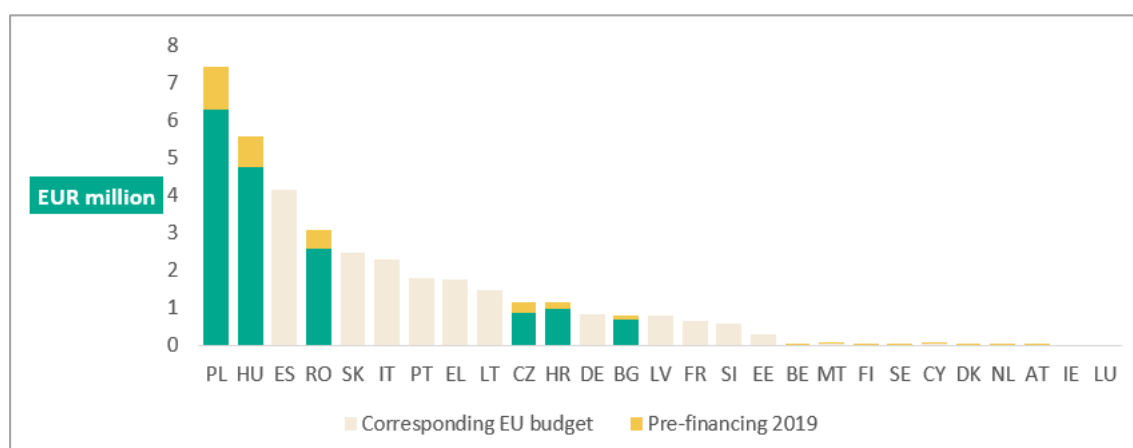
In April 2020, the Commission launched two packages of measures: the Coronavirus Response Investment Initiative (CRII) and the Coronavirus Response Investment Initiative Plus (CRII+), with the objective to mobilise EU cohesion funds to tackle the pandemic crisis. Flexibility was introduced to make possible the transfer of unallocated EU funding between types of funds and categories of regions and the use of unspent EU pre-financing, as well as to increase the EU co-financing rate to 100 % for the 2020-2021 accounting year.

The objective of the two initiatives was to use all the flexibility in the EU budget to support the health sector (e.g. secure personal protective equipment, finance testing and support hospitals by purchasing additional medical equipment), the business sector (providing working capital to SMEs, facilitating digitalisation and setting up or redesigning financial instruments) and people (e.g. implementing

employment retention schemes and supporting vulnerable groups).

According to the Commission proposal, CRII aimed to mobilise EUR 37.3 billion of European public investment to fight COVID-19. The national allocation of investments under CRII had a clear geographical pivot towards Eastern (non-euro area) and Southern Member States (see Figure 19). This is no surprise, since CRII and CRII+ *de facto* consisted of a recommitment of the (either unspent or not yet committed) structural funds, which in the Multiannual Financial Framework (MFF) 2014-2020 largely benefited these two clusters of countries. In addition, one may observe that the logic of the CRII initiative was that of "giving a second chance" to Member States that had a delay in either spending or committing their structural funds, by using these envelopes to address the consequences of COVID-19. Overall, the amounts involved are relatively small as CRII and CRII+ were launched in the last year of the MFF 2014-2020, when the largest share of the funds had already been committed.

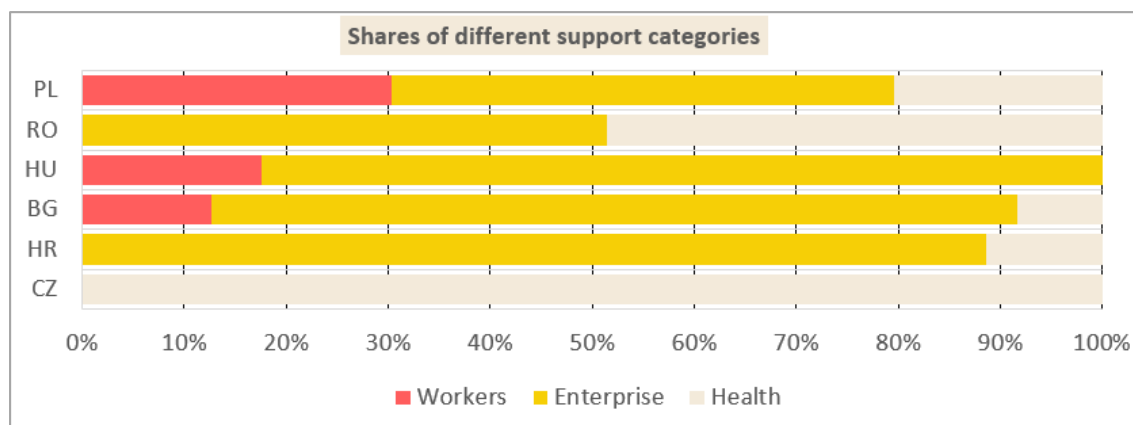
Figure 19: Breakdown of investment volumes under CRII



Source: Authors' compilation of EC data.

To track the actual use of CRII and CRII+ funds to tackle the COVID-19 crisis, in May 2020 the Commission proposed a voluntary list of programme-specific indicators to be applied across Member States to identify all the national operational programme changes (see Figure 20).

Figure 20: Allocation of reprogrammed funds under CRII/CRII+ explicitly indicated by non-euro area Member States using the Commission's common COVID-19 indicators



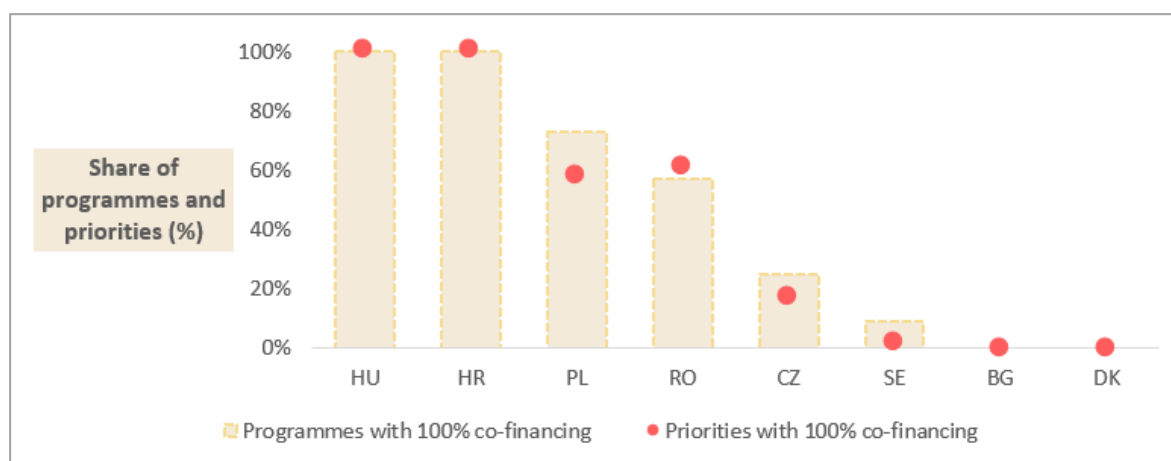
Source: Authors' compilation, based on [European Commission](#).

A peculiar advantage of using the information available through these voluntary indicators is the possibility to distinguish between the different types of reprogrammed expenditure to support people, e.g. short-time work arrangements, supplementary wages for healthcare personnel, IT equipment,

personal protective equipment and services for vulnerable groups. Given that not all Member States adopted the voluntary common indicators proposed by the Commission, the actual amount of this support is likely to be higher.

Besides changing their operational programmes<sup>14</sup>, some Member States also took up the option of 100 % EU financing allowed under CRII+ to benefit from the flexibility under CRII/CRII+. The non-euro area Member States that benefit the most from this flexibility are Hungary and Croatia, both making full use of it for programmes and priorities (see Figure 21).

Figure 21: Share of programmes and priorities



Source: Authors' compilation, based on [European Commission](#).

The impact of CRII and CRII+ on nominal convergence in non-euro area countries is difficult to assess. The flexibilities brought by these measures seem to have been appreciated by the authorities<sup>15</sup>, and the Commission initially estimated that the measures could mobilise EUR 37 billion in public investments. However, a large part of the funding has been allocated to health-related expenditure, for instance emergency acquisition of medical equipment, not directly impacting nominal convergence indicators. In addition, as noted above, since the largest beneficiaries were countries which still had unspent or not yet committed resources, they could inject those funds into the economy.

### 3.3.2. European Investment Bank initiatives

EU intervention in the first phase of the crisis was not limited to actions under the MFF. Together with the EIB, in April 2020 the Commission presented a Support Action Plan with the aim of unlocking EUR 28 billion of financing to alleviate liquidity and working capital constraints for SMEs and mid-caps. The financing package consisted of:

- dedicated guarantee schemes based on existing programmes for immediate deployment. The European Investment Fund (EIF) was provided guarantees worth EUR 2.2 billion to financial intermediaries, unlocking EUR 8 billion in available financing;
- dedicated liquidity lines to banks to ensure additional working capital support for SMEs and mid-caps of up to EUR 10 billion. Sub-operations consisted of loans for SMEs and mid-caps to

<sup>14</sup> Operational programmes are plans containing a breakdown of Member States' strategic objectives into investment priorities for a given programming period.

<sup>15</sup> See replies to the public consultation here: [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12913-COVID-19-response-investment-initiative-evaluation/feedback\\_en?p\\_id=24654335](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12913-COVID-19-response-investment-initiative-evaluation/feedback_en?p_id=24654335). It should be noted that the very low number of responses bring only anecdotal evidence.

eligible financial intermediaries and national and regional promotional banks; and

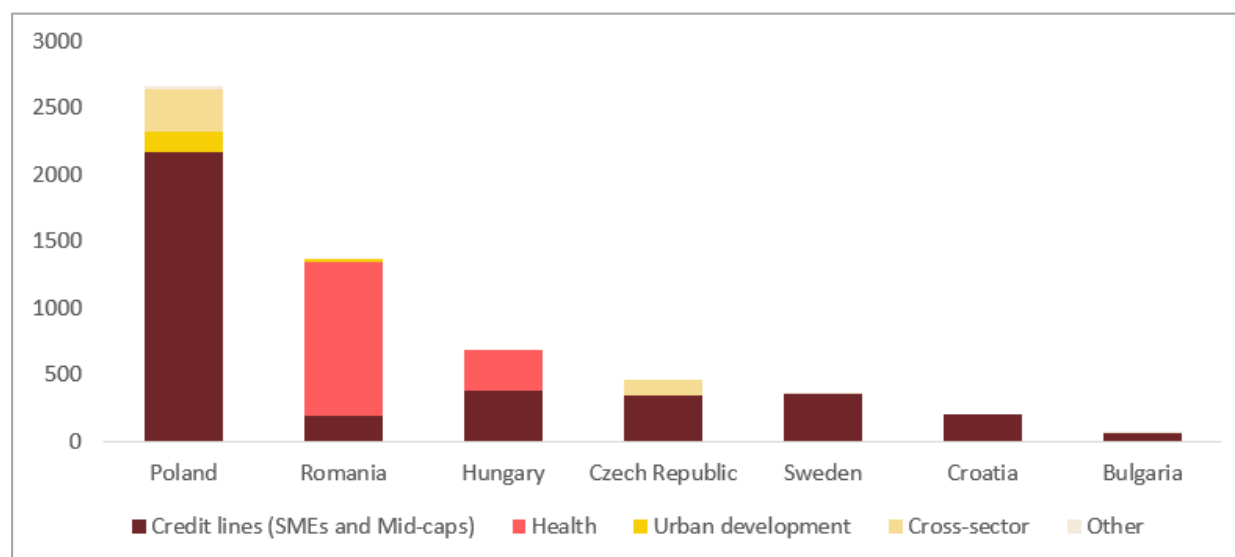
- dedicated asset-backed securities (ABS) purchasing programmes to allow banks to transfer risk on portfolios of SME loans, mobilising up to another EUR 10 billion of support.

In parallel to the first package of measures, the Commission and the EIB announced a pipeline of projects in the health sector of EUR 5 billion. The aim of this instrument was to finance infrastructure improvements and equipment needs in the health sector and projects working towards the development of a vaccine against COVID-19.

Finally, the European Guarantee Fund (EGF) was created in April 2020 with EUR 25 billion of guarantees, enabling the EIB – in partnership with local lenders and national promotional banks – to issue special guarantees explicitly targeted at incentivising banks to provide liquidity to SMEs and small mid-cap companies.

Overall, the EIB intervention could mobilise EUR 13 billion in guarantees, coming from pre-existing programmes, and EUR 25 billion, belonging to new actions. Among the non-euro area Member States, Poland benefits from the largest approved financing volume (EUR 2.66 billion) and the highest number of projects (13), followed by Romania (EUR 1.36 billion and 10 projects) (see Figure 22).

Figure 22: Share and sectoral distribution of EIB COVID-19 projects across non-euro area Member States, 30 March 2022 (million euros)



Source: Authors' compilation, based on [EIB data](#).

Note: Volumes are based on approved amounts.

Non-euro area countries benefited from EIB measures especially because of their otherwise modest use of national financial instruments and guarantees. Compared to the size of the national guarantees, the additional EIB support was considerable in Romania, Hungary, Croatia and Bulgaria.

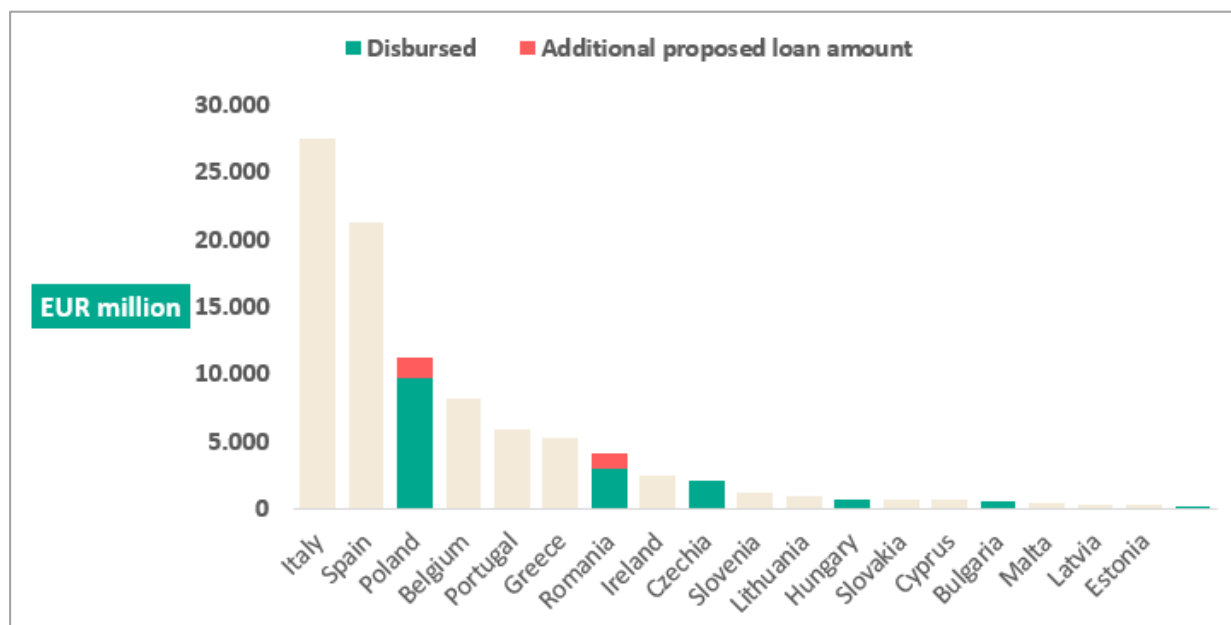
### 3.3.3. SURE

The temporary Support to mitigate Unemployment Risks in an Emergency (SURE) was proposed in April 2020 and adopted in June 2020 with the aim of acting as a second line of defence of national short-time work schemes and similar measures taken in response to the crisis, including for self-employed people.



SURE takes the form of a lending scheme of up to EUR 100 billion underpinned by a system of guarantees from Member States to the Union budget, representing 25 % of the loans granted. As a temporary instrument, SURE was created under Article 122(2) TFEU, and is in place until 31 December 2022. As of May 2022, the Council approved a total of EUR 94.4 billion in financial support.

Figure 23: SURE loans, disbursed and proposed amounts per Member State



Source: Authors' compilation, based on [European Commission](#).

SURE mostly attracted countries with a high level of debt, which typically pay a higher risk premium, and for which the loans would represent a saving. But the low interest rates that the EU applied were interesting also for those countries with a small local debt market, which typically pay a liquidity premium (Corti and Alcidi, 2021). This explains why countries like Poland or Romania, with a relatively low debt-to-GDP ratio, asked for SURE support. For these countries, the additional attractive feature of the SURE loans was the long average maturity, of up to 15 years. Countries like Bulgaria, Croatia, Poland and Romania are usually able to place bonds with maturities up to 10 years.

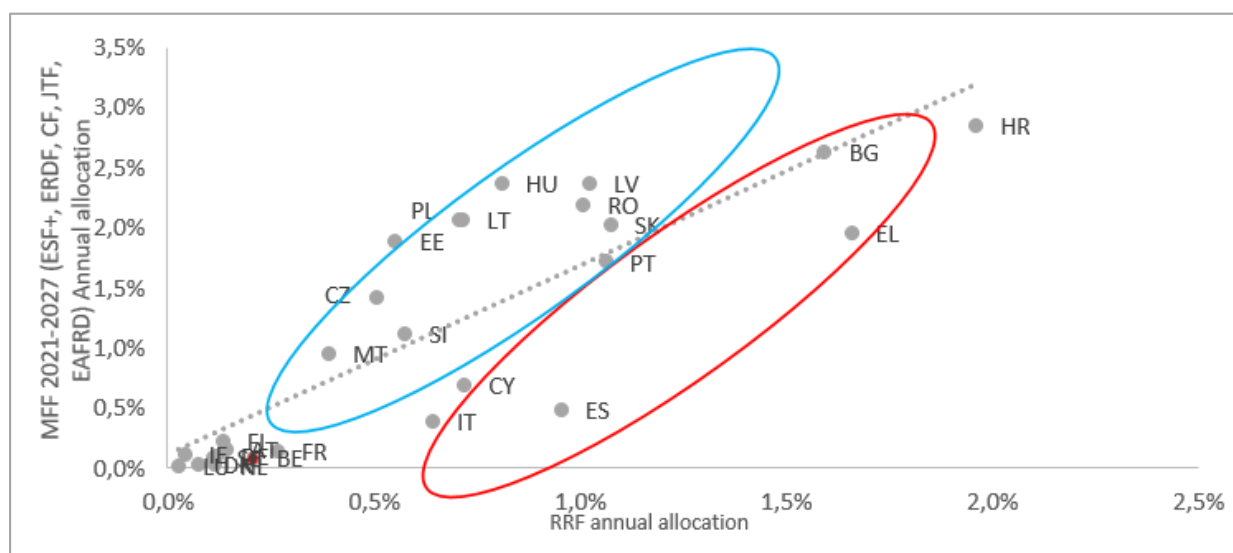
Overall, the introduction of SURE had a positive impact on maintaining social cohesion within the EU, avoiding countries with high debt finding themselves without the fiscal margins to protect employment. It is interesting to observe that the countries that asked for SURE support asked for an amount equal to the national total expenditure on short-time work schemes and similar measures. With the exception of Romania, the absorption of SURE financial assistance was high. The success of SURE can thus be measured as a redistributive tool benefiting Southern and Central-Eastern Member States; but also as a quick and efficient tool that was swiftly implemented and allowed 19 Member States to save EUR 8.2 billion in interest payments.

### 3.4. Supporting Member States' recovery

An agreement on NextGenerationEU (NGEU) was reached by the European Council in July 2020. The most important instrument included in NGEU is certainly the Recovery and Resilience Facility (RRF), with resources of EUR 672.5 billion, providing large-scale financial support to reforms and investments undertaken by Member States to make their economies more resilient in the aftermath of the pandemic. This objective is also explicitly recognised in the allocation key of the RRF funding, which considers pre-crisis structural challenges, more than the depth itself of the pandemic crisis.

The objective also explains the strong redistributive nature of the RRF, which largely benefits Southern and Central-Eastern Member States. In this respect, as observed by Alcidi and Corti (2022), the RRF injection of money is to be considered together with the resources that Member States will receive under the traditional MFF, which started in 2021 and will last until 2027. If one considers the two sources of financing together, it means that Southern and Eastern European Member States will have to absorb up to 5 % of their GDP. Croatia and Bulgaria are by far the largest beneficiaries of the RRF, with an allocation of EUR 5.8 billion each, to which one should add EUR 1 billion and EUR 1.6 billion respectively from REACT-EU, and the NGEU top-up of the European Agricultural Fund for Rural Development (EAFRD) and Just Transition Fund, thus bringing the annual support from NGEU and the MFF to 5.2 % of GDP for Croatia and 4.6 % of GDP for Bulgaria (see Figure 24).

Figure 24: Annualised MFF 2021-2027 and RRF grants (% of 2020 GDP)



Source: Authors' compilation, based on European Commission.

Note: NGEU funds are assumed to be distributed over a period of six years (2021-2026) and MFF over seven years (2021-2027).

As stated above, however, the RRF is not only about investments but also about reforms. The national recovery and resilience plans (NRRPs) have to be aligned with the European Semester's country-specific recommendations, in particular those where the Member States have registered only partial or no progress in 2019 and 2020. In line with instruments previously proposed, such as the Reform Support Programme (2018) and the Budgetary Instrument for Competitiveness and Convergence, the RRF aims primarily to support Member States in their implementation of structural reforms, in line with the country-specific recommendations mentioned above. In this respect, the RRF can be considered an important financial instrument to support convergence within the EU in the post-pandemic period. Indeed, structural reforms are primarily meant to accelerate the upward convergence – both economic and social – of Member States, whether or not they are part of the EMU. Clearly, to deliver on these expectations, structural reforms should be implemented effectively and efficiently. This requires, among others, efficient public administration (PA) that can absorb the significant amount of resources and political sustainability necessary to implement ambitious reforms smoothly.

## 4. LATEST DEVELOPMENTS IN CROATIA AND BULGARIA

### 4.1. Accession process and commitments

Bulgaria signalled its intention to adopt the common currency relatively soon after the country's 2007 accession to the EU. The Bulgarian lev has been pegged to the euro since the latter's 1999 launch. However, Bulgaria failed to comply with the convergence criteria and in the end stated its intention to join ERM II in a letter of July 2018<sup>16</sup>. This letter, together with a follow-up statement<sup>17</sup> by the ECB and the euro area Member States and Denmark (the ERM II stakeholders), set out the conditions for ERM II entry. Upon Bulgaria's accession in July 2020, the application letter to ERM II contained a list of "reform areas of high relevance for achieving a high degree of sustainable economic convergence and successful participation in the third stage of the Economic and Monetary Union". Four policy areas and the specific measures related to each of them were identified (see Table 2). The Draft National Plan<sup>18</sup> for the introduction of the euro was adopted in June 2021.

Table 2: Bulgarian ERM II post-entry commitments

Policy area	Measure
1. Ensuring the sustainability of the non-banking financial sector	Adequacy of the level of technical provisions
	Compliance with the applicable requirements for assets and liabilities valuation
	Effectiveness of the system of governance
	Application of the prudent person principle
2. Legislative changes regarding state-owned enterprises	Develop a state ownership policy
	Bring the composition of boards of public enterprises into compliance with the selection procedures set out in the law
	Undertake an analysis of the activities of state enterprises established by special laws, and submit it to the Council of Ministers
	Prepare and approve annual aggregate reporting on the performance of state public enterprises
3. Implement the roadmap on the insolvency framework	Legislative amendments
	Organisational change
	Training programmes for insolvency practitioners and judges
	Specialised electronic tools within insolvency and restructuring
	Development and introduction of manuals, codes, templates and guidelines

<sup>16</sup> Council of the European Union, "Bulgaria's path towards ERM II participation", cover note, 13 July 2018, available at: <https://www.consilium.europa.eu/media/36125/st11119-en18.pdf>.

<sup>17</sup> Eurogroup, "Statement on Bulgaria's path towards ERM II participation", available at: <https://www.consilium.europa.eu/en/press/press-releases/2018/07/12/statement-on-bulgaria-s-path-towards-erm-ii-participation/>.

<sup>18</sup> "Draft National Plan for Introduction of the Euro in the Republic of Bulgaria", available at: <https://www.strategy.bg/PublicConsultations/View.aspx?lang=bg-BG&id=6168>.

Policy area	Measure
	Statistical data collection and publicity
	Other amendments or actions necessary to ensure the full transposition of Directive (EU) 2019/1023
4. Strengthening the anti-money laundering framework	Enhance the capacity of the supervisory authorities' capability to mitigate the risks of money laundering and increase application of the anti-money laundering framework by obliged entities
	Enhance the capacity and analytical capabilities of the Financial Intelligence Unit to make better use of suspicious transaction reports and increase the use of financial intelligence by competent authorities
	Draw up an action plan to follow up on the risks identified in national risk assessments of the Financial Intelligence Unit
	Complement national risk assessments by the Financial Intelligence Unit with an analysis of risks linked to virtual assets and general risks emanating from the citizenship schemes

Source: Bulgarian ERM II application letter, available at:

[https://www.ecb.europa.eu/pub/pdf/annex/ecb.pr200710\\_annex~29156bba37.en.pdf](https://www.ecb.europa.eu/pub/pdf/annex/ecb.pr200710_annex~29156bba37.en.pdf).

In the case of Croatia, the intention to join the euro area as soon as possible was stated upon the country's accession to the EU in 2013. In 2018, the Croatian government and NCB prepared the strategy for the adoption of the euro<sup>19</sup>. The strategy contains concrete measures to be taken to meet all the nominal convergence criteria and additional requirements of the accession process. Similarly to Bulgaria, Croatia submitted a letter containing commitments prior to joining ERM II<sup>20</sup>. It entered a year later, along with Bulgaria. As with Bulgaria, the 2020 application letter contained an action plan with post-entry commitments (see table Table 3).

<sup>19</sup> Available here: "Strategy for the adoption of the euro in the Republic of Croatia", <https://euro.hnb.hr/documents/2070751/2104255/e-strategy-for-the-adoption-of-the-euroin-Cro.pdf/9e02b33f-665a-46a9-a1b6-ac63f9af3c95>.

<sup>20</sup> Available here: Letter from the Government of the Republic of Croatia and the Croatian National Bank to the President of the Eurogroup, President of the European Central Bank, Finance Ministers of the Euro Area Member States, Finance Minister and Central Bank Governor of Denmark, Vice President of the European Commission for the Euro, <https://www.consilium.europa.eu/media/40282/letter-of-intent.pdf>.

Table 3: Croatian ERM II post-entry commitments

Policy area	Measure
1. Strengthen anti-money laundering framework	Raising the level of awareness among all responsible parties for the implementation of measures through regular education
	Continued cooperation between the Anti-Money Laundering Office and the supervisory authorities
	Implementation of the new action plan to reduce the risk of money laundering and financing of terrorism
2. Enabling a less costly and administratively simpler business environment	Simplification and digitalisation of administrative procedures
	Reduction of fiscal burden for the economy
3. Improved governance of state-owned enterprises	Improvement of corporate governance in state-owned enterprises
4. Strengthening the national insolvency framework	Implementation of a modern and uniform legal and regulatory framework for the profession of insolvency practitioner
	Review of the procedures for collecting data in the field of restructuring, insolvency and discharge of debt, and implementation of the necessary changes to comply with the Directive on Restructuring and Insolvency and fulfil its optional data collection provisions

Source: Croatian ERM II application letter, available at:

[https://www.ecb.europa.eu/pub/pdf/annex/ecb.pr200710\\_1\\_annex.en.pdf](https://www.ecb.europa.eu/pub/pdf/annex/ecb.pr200710_1_annex.en.pdf).

The process above seems to have formalised the ERM II entry procedure, and also led to an extension of the conditions for joining the mechanism, and thus the euro. For instance, prior to entering, the two countries were asked to join the Banking Union. This condition could be problematic, as Article 140 TFEU does not seem to provide the legal basis for its imposition. It could be argued that the logic behind this requirement is precautionary and aims to build a stable and resilient EMU. Other (institutional) conditions (e.g. ensuring improvement of the collection, production and dissemination of statistics in Croatia or strengthening the anti-money laundering framework in Bulgaria) could also be based on such a rationale, namely that stronger institutions prevent the build-up of imbalances conducive to crises. However, with many current euro area members struggling with similar issues, it could be argued that these requirements are not indispensable, and also call into question the equal treatment of Member States (Žáček, 2021).

According to current plans, Croatia will introduce the euro on 1 January 2023, while Bulgaria will accede a year later, on 1 January 2024. The two previous Convergence Reports (2018 and 2020) pointed to issues to be addressed before accession can take place in both countries. However, the 2022 report assessed that Croatia fulfils the criteria to adopt the euro. Regarding Bulgaria, the report found that the country did not meet the price criterion, and inconsistencies regarding the compatibility of national legislation remained. (Table 4 provides an overview of the two assessments).

Table 4: Overview of 2018 and 2020 ECB Convergence Reports for Croatia and Bulgaria

Criteria		Croatia			Bulgaria		
		2018	2020	2022	2018	2020	
Price stability		Yes	Yes	Yes	Yes	No	No
Sound public finances	Deficit	Yes	Yes	Yes	Yes	Yes	Yes
	Debt-to-GDP	Above reference value of 60 %, but diminishing	Above reference value of 60 %, but diminishing	Yes	Yes	Yes	Yes
Exchange rate stability		No (not part of ERM II)	No (not part of ERM II)	Yes	No (not part of ERM II)	No (not part of ERM II)	Yes
Convergence in long-term interest rates		Yes	Yes	Yes	Yes	Yes	Yes
Compatibility of national legislation		ECB: No EC: Yes	ECB: No EC: Yes	Yes	No	No	No

Source: ECB Convergence Reports 2018 and 2020.

## 4.2. Overview of economic developments

### 4.2.1. Economic outlook of Croatia and Bulgaria in early 2020

At the outset of the pandemic-induced crisis, Croatia and Bulgaria were experiencing favourable growth prospects and were expected to continue along this path in the years to come, with a positive economic forecast for 2020.

In Croatia, GDP growth in 2019 was around 2.9%, in continuation of the positive trends of the previous years and mostly driven by household consumption and investments, notably EU-supported public ones. Unlike other Central-Eastern Member States, Croatia did not experience the high-speed catch-up convergence trends that took place during the 2010s. In addition, significant differences persisted across regions, notably between Zagreb and the rest of the country, with the former accounting for 34 % of national GDP despite hosting 19 % of the population. Public investment (calculated as general government gross fixed capital formation) halved between 2008 and 2017, and then recovered thanks to the support of EU funds after 2018-2019. The current account surplus was around 3.1 % of GDP and the trade balance was negative, on the back of strong domestic demand having led to an import increase. Although disposable incomes were increasing and economic activity accelerating, the headline inflation fell to 0.8 % in 2019, mostly due to the slowdown of energy prices. Inflation was expected to increase by 1.5 % in 2020 and 1.7 % in 2021. General government public finances were quite positive with the budget balance in surplus (0.4 %), while general government debt was set at 71 % in 2019 but projected to decrease to 64.4 % by 2021.

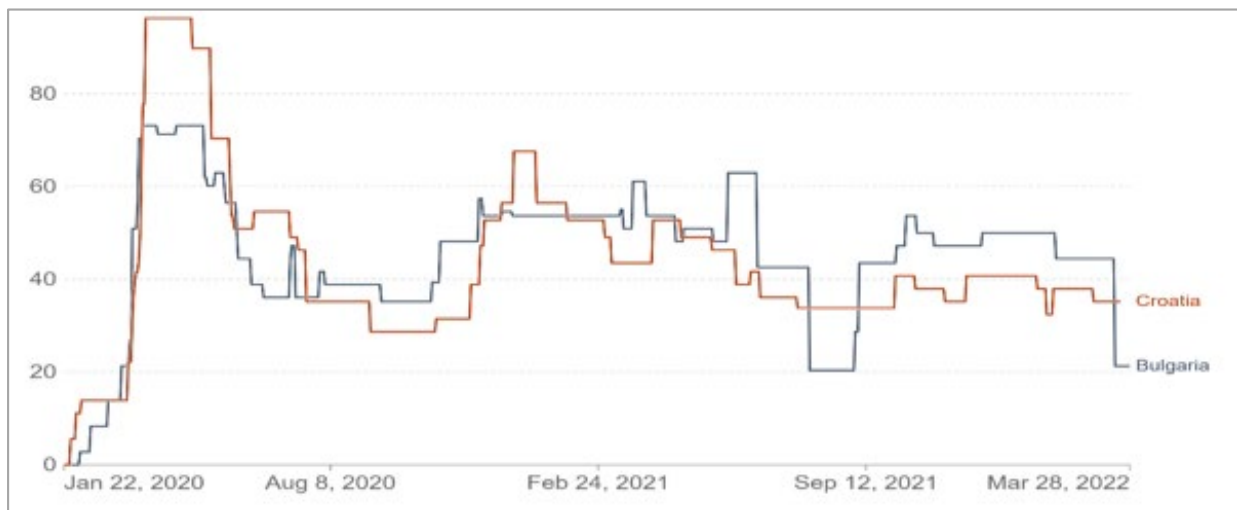
In Bulgaria, GDP growth (by 3.8 % in 2018 and 3.7 % in 2019 y-y), was mainly driven by private consumption and was expected to continue in 2020 (3.6 %) and 2021 (3.0 %). Investments were growing except for equipment and machinery, thanks to the favourable financing conditions and high-capacity utilisation. Key driving factors of the investment growth were the EU funds absorption (one third of total public investment) and domestic savings (two thirds of public investment), and fewer

foreign direct investment (FDI) inflows. Following the developments in consumption and investment, imports were increasing while export-led consumption was slowing down. The contribution of net exports to GDP growth was negative in 2018 and close to zero the year after. The current account balance was strengthening (+5.4 % of GDP in 2018), having been in surplus since 2013. The general government budget balance was equal to 1.9 % of GDP in 2019, while gross general government debt was around 21.1 % in 2019 and expected to decrease even further in 2020 and 2021. The net international investment position (NIIP) was on a decreasing path in 2019, facilitated by high GDP growth and ample liquidity in the banking sector. High volatility settled over 2019 at 2.5 %, mostly due to food and energy prices.

#### 4.2.2. Depth of the pandemic crisis in Croatia and Bulgaria

Croatia and Bulgaria were hit by the pandemic in March 2020, after the first cases of people infected by COVID-19 were traced around the middle of the month. Yet, as in many other Member States, the adoption of the first stringency measures to tackle the pandemic had already been adopted at the beginning of the month and quickly scaled up with school and workplace closures, restrictions on gatherings and individual movement, contact tracing, international travel restrictions and policies to test for corona infections at the same time as in other Member States. In a situation of uncertainty, the decision was taken to follow the examples of those Member States that were hit first by the pandemic, taking a sort of mimic approach. Yet, a key difference distinguishes Bulgaria from any other Member State in its decision not to go into a full lockdown, even during the first wave of the pandemic (see Figure 25).

Figure 25: COVID-19 stringency index



Source: [Oxford, COVID-19 government response tracker](#).

As in other Member States, the immediate impact of the stringency measures and the temporary freezing of a large part of the countries' economic activities translated into a steep contraction of GDP, which in Croatia fell by 8.1 % in 2020 (y-y). The GDP contraction was particularly strong in the second quarter of 2020 (15 % q-q change), recovered by 6.9 % in the third quarter and contracted again in the last quarter of 2020, by 0.8 %. The contraction was mainly led by the impact of the pandemic on service exports, especially in the tourism sector. The fall in private consumption was reflected in involuntary and precautionary savings. The contraction was further aggravated by the consequences of the earthquakes in the Banija region and Zagreb.



In Bulgaria, the depth of the crisis was less pronounced, with a GDP contraction of around 4.4 %. Bulgaria's GDP contracted particularly in the second quarter of 2020 (10.1 % q-q) but then rather than a V-shaped recovery, it experienced an L-shaped one with growth rates of around 0.4 % in both the third and fourth quarters of 2020. The dynamics of private consumption followed the trends of the pandemic and notably of the containment measures. Exports started recovering only in the second half of 2020, but mostly towards EU countries, with consequent losses in revenues especially from tourist accommodation. In 2020, GDP fell by 4.9 %.

In principle, the responses to COVID-19 of unemployment and consumer price inflation mimicked the development of GDP, at least in a qualitative sense. Between 2019 and 2020, both Croatia and Bulgaria experienced an increase in the unemployment rate of 1 p.p., which put the two countries on a different path compared to other Member States, where unemployment levels stayed equal, or even decreased. Similarly, the inflation rate remained low in both countries, mostly due to the fall in energy and unprocessed food prices.

#### 4.2.3. Fiscal response to the COVID-19 crisis

To address the consequences of the pandemic, Bulgaria and Croatia immediately put in place significant fiscal packages, including liquidity and solvency programmes to maintain the cash flow of firms and foster their access to capital through state guarantees for bank loans. Other measures were included in the fiscal packages, such as the deferral of tax payments and lower prepayments of taxes, including contributions to the social security system. Unlike liquidity programmes, deferrals cause a deterioration of public budgets in the short term but tend to improve them in later years. Finally, traditional discretionary expenditure measures were also put in place with the aim of increasing aggregate demand, including measures to support employment (e.g. short-time work schemes and similar), income for enterprises and households, the healthcare sector, exceptional capital investment and interest subsidies.

The total Bulgarian response, which amounted to just above 1.3 % of GDP, made by discretionary expenditure measures worth 1.15 % of GDP, and interventions through financial instruments making up only 0.18 % of GDP (see Figure 26).

The Croatian fiscal package amounted to 4.6 % of GDP (see Figure 27). The significant intervention on employment support measures, together with the freezing of dismissals, contributed to keeping the unemployment rate under control. In addition to the use of financial instruments (2.7 % of GDP) and guarantees (1.7 % of GDP), Croatia made use of discretionary expenditure measures amounting to 0.17 % of GDP. Clearly, the budgetary impact of guarantees, which was basically absent in Bulgaria, paints a different picture of the fiscal efforts of the two countries.



Figure 26: Fiscal measures in Bulgaria

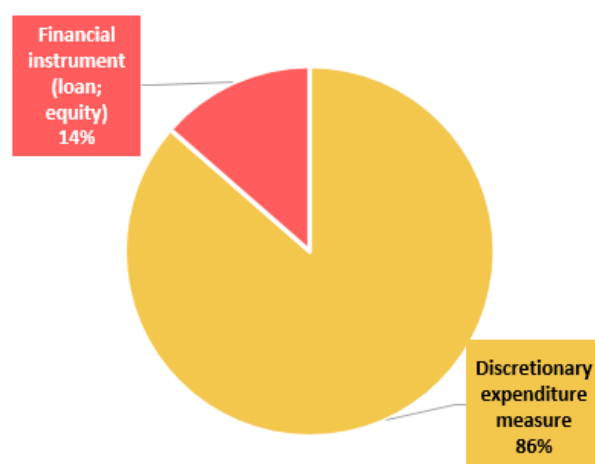
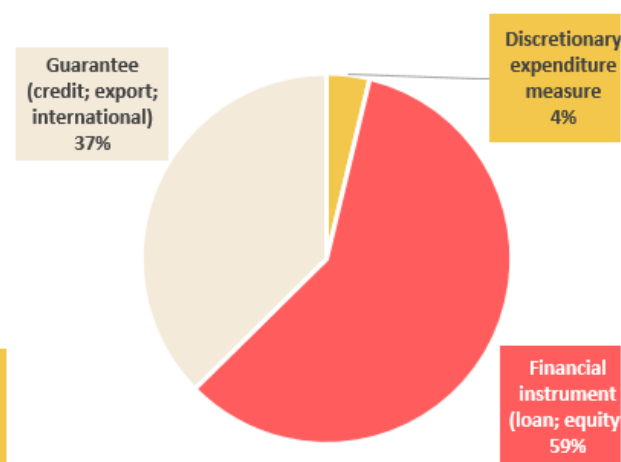


Figure 27: Fiscal measures in Croatia



Source: CEPS compilation.

### 4.3. Trends in nominal convergence

#### 4.3.1. Price stability

The analysis presented in the overview section indicates a deterioration in convergence paths across the EU as a whole in the recent past, as well as in non-euro area Member States.

The recession caused by the effects of the pandemic dampened inflation in almost all EU countries. The inflation rate in Bulgaria dropped to 1.2 % and in Croatia to zero in 2020, standing at 2.2 p.p. and 1.0 p.p. respectively above the average inflation rate in three reference countries in 2020 (-1.0 %). The fall in the inflation rate in Bulgaria in 2020 is mostly attributed to the decrease in international energy prices, the slowdown in core inflation and the cut in regulated natural gas and heating prices (OECD, 2021).

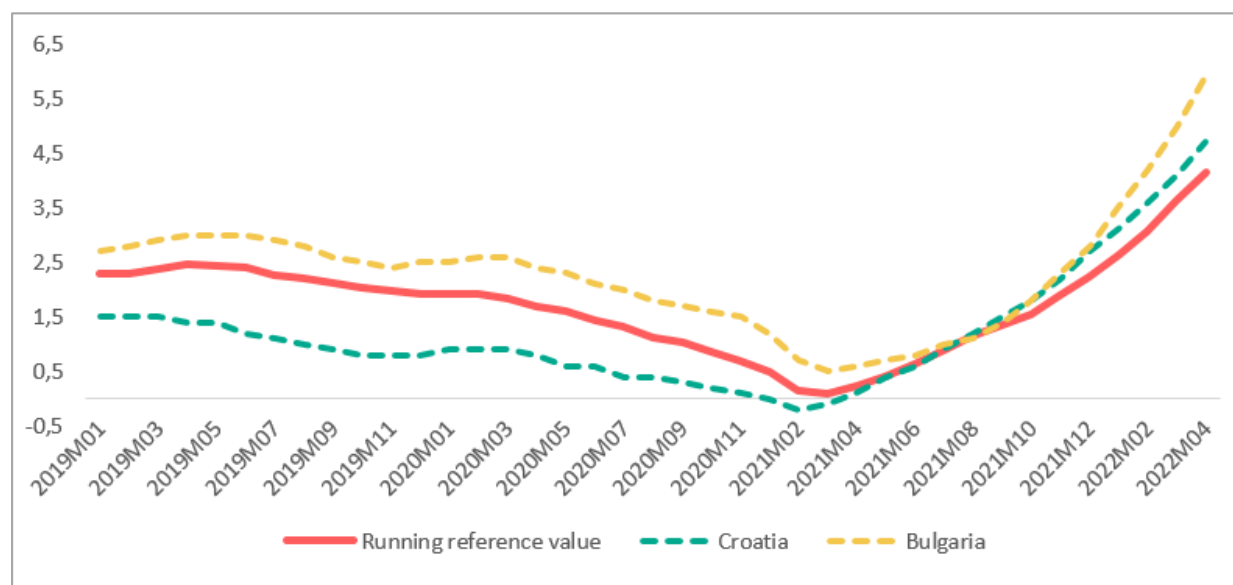
In Bulgaria, more recent positive inflation dynamics have been mainly driven by energy and food prices. Strong domestic demand motivated by real wage growth has also contributed to inflationary pressures (OECD, 2021). In 2018, the inflation rate in Bulgaria reached 2.6 %, 1.7 p.p. above the average inflation rate of the reference countries (i.e. the three EU Member States with the lowest inflation rates) in that year. The divergence expanded over the subsequent years up to 2.1 p.p. at the end of 2021.

The average prices also increased in Croatia during this period but to a lesser extent. At the end of 2021, Croatia was still in line with the convergence criterion of price stability. However, the latest data indicate that over the last months of 2021 and in 2022 the 12-month average harmonised index of consumer prices (HICP) rate of change has surpassed that level.

Overall, the pandemic appears to have caused a deterioration in convergence towards price stability, particularly in Bulgaria. In 2021, price levels surged in most Member States. The average inflation rate in the euro area reached 2.6 %, 1.4 p.p. higher than its pre-pandemic level. In Bulgaria and Croatia, the inflation rate in 2021 moved to the same level, indicating that prices soared relatively more strongly in Croatia over the year.

The Commission's projections, published in April 2022, for inflation in Bulgaria in 2022 and 2023 show that its deviation of prices from the convergence path will deteriorate further, increasing to nearly 7.4-7.5 p.p. above the inflation rates of the three best performing economies (Portugal, Finland and Malta in 2022). Croatia's inflation rate is expected to stay in line with (albeit slightly above) the convergence path (see Figure 28).

Figure 28: 12-month HICP rate of change in Bulgaria and Croatia compared to the running reference value



Source: Authors' compilation based on Eurostat.

Calculation of the reference value is not always mechanical. The exact notion of "best performers" is not explicitly defined in the Treaty, making their identification subject to interpretation, with both previous ECB and Commission reports having on occasion excluded "outliers". This non-mechanical application of the criterion is important given country-specific circumstances that influence price developments against the backdrop of the overall economic environment at the time of assessment.

Exclusions based on an outlier analysis have resulted in changes in the list of "best performers" in the past. The first case was Lithuania in 2004, which – in the Commission's assessment – had a negative inflation rate due to specific factors. Consequently, it was excluded from "the calculation of the reference value as it might otherwise have given rise to a distortion in the reference value and reduced the usefulness of the reference value as an economically meaningful benchmark" (ECB, 2004). In 2010, Ireland was excluded with a rate of -2.3 %, as its inflation rate was "significantly lower than those of the other Member States". Nonetheless, all of the "three best performing Member States" had positive inflation rates, which is somewhat at odds with the purpose of the criterion to prepare economies to perform well in the monetary union, where the ECB generally aimed for inflation rates above zero (Žáček, 2021). Other outliers include Greece (2013), Greece, Bulgaria and Cyprus (2014) and Cyprus and Romania (2016). The above indicate that the Commission and the ECB have some freedom in applying the concept of "best performers", which can result in considerable changes in the reference values and consequently the outcome of the assessment.

Historically, the reference value has always been above the euro area average, albeit usually not by a large margin. Based on data from April 2022, applying the reference value based on the three countries with the lowest inflation rate (Malta, Portugal and France, plus 1.5 %) would result in 4.1 %, while the euro area average is 4.4 %. Therefore, it is possible that the assessment will include consideration of

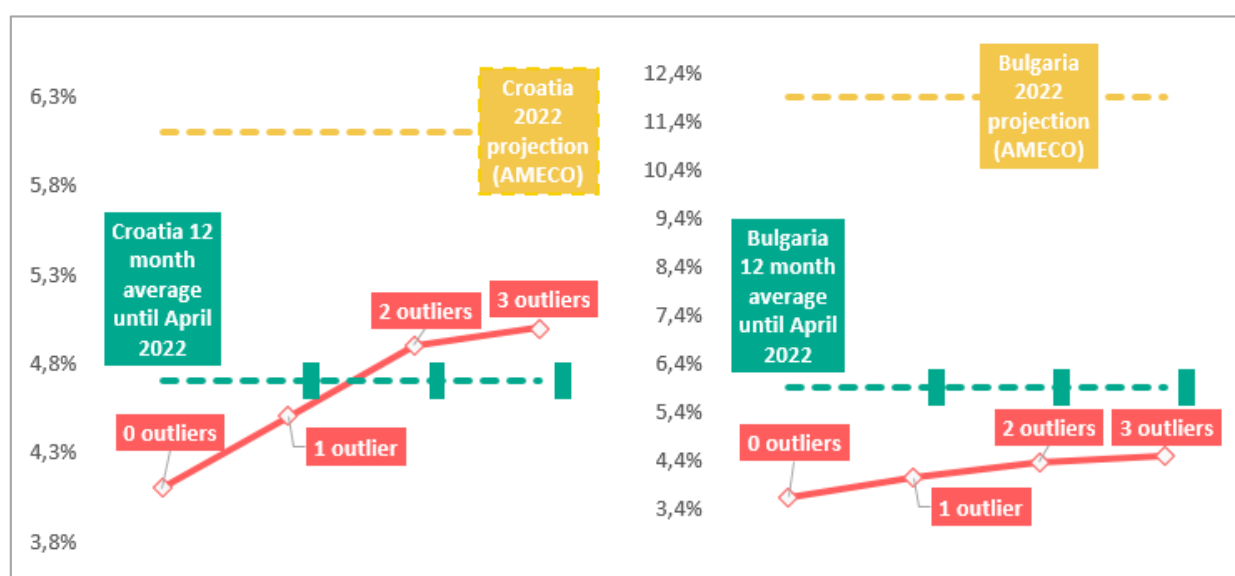
outliers.

The figures below consider four different scenarios:

- no change in the list of 'best performers' based on the outlier analysis;
- Malta is excluded;
- Malta and Portugal are excluded; and
- Malta, Portugal and France are excluded.

Figure 29: Croatian 12-month average HICP rate of change and reference values under the four scenarios

Figure 30: Bulgarian 12-month average HICP rate of change and reference values under the four scenarios



Source: Authors' calculations based on Eurostat.

Based on the figures above, it seems clear that using a strict interpretation of the price criterion, neither Bulgaria nor Croatia would meet the requirements. In the case of Bulgaria, this seems out of reach in 2022, given that, in April, inflation was at 5.9 %, considerably higher than the reference value, even if the three best performers would be considered outliers, and it is projected to remain such in the next months. Regarding Croatia, the country could meet the price criterion provided that both Malta and Portugal are excluded from the calculation of the reference value.

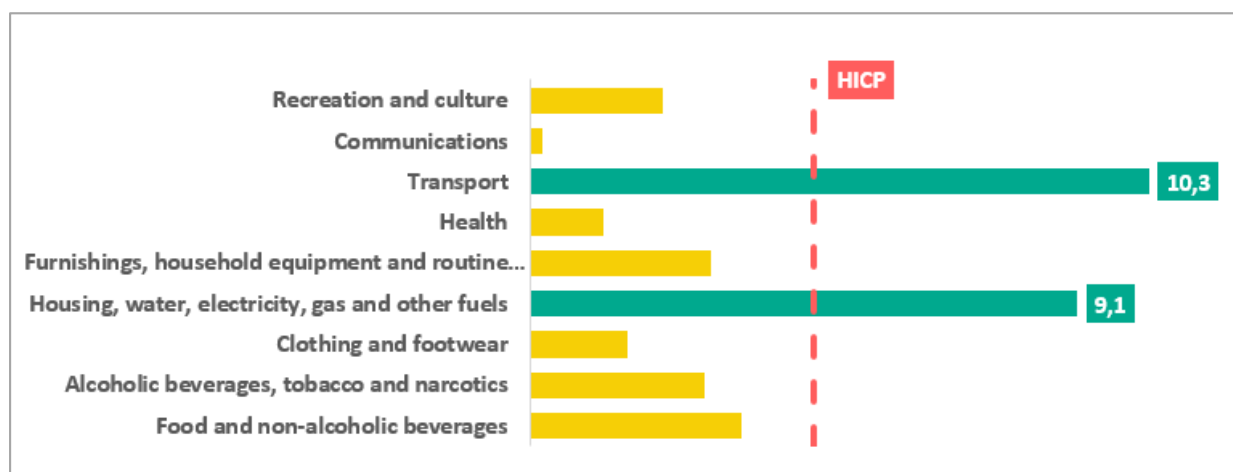
It should be noted that the 12-month average inflation in Malta (2.1 %) and Portugal (2.6 %) appears well below the next three best performers, France (3.2 %), Finland (3.3 %) and Greece (3.6 %), which by contrast are quite close to each other, and in line with the euro area average.

By removing Malta and Portugal from the calculation of the reference value, but having France, Finland and Greece, would give a reference value of 4.9%, hence above the 4.7 % inflation of Croatia. Using those three countries as best performers also implies that Croatian inflation is projected to remain below the reference value in the months ahead.

As shown above, there is no systematic methodology for the identification of outliers, it is thus important to examine whether there are grounds, as objective as possible, for the exclusion of a given country from the calculation of an "economically meaningful benchmark".

Figure 31 shows the average rate of change in the main components of HICP for the EU, in April. Based on those data, the two main factors driving inflation are: i) transport, and ii) housing and energy.

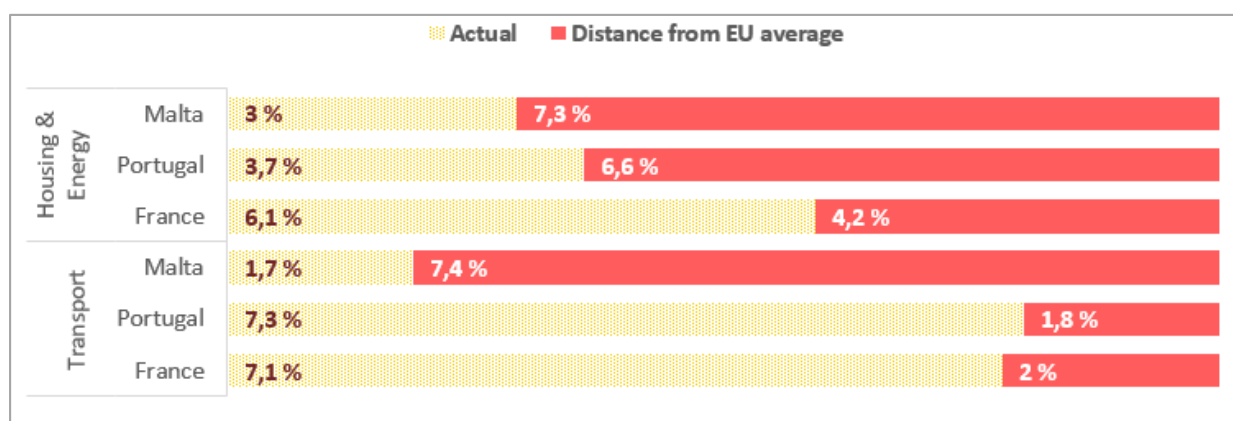
Figure 31: EU 12-month average rate of change in HICP components, April 2022



Source: Authors' compilation based on Eurostat.

The examination the rate of change of these two components in the "best performing" economies, compared to the EU, suggests that in the case of Malta, both values are far below average. Based on these figures, Malta clearly appears an "outlier".

Figure 32: 12-month average rate of change in transport and housing & energy prices in best performers



Source: Authors' compilation based on Eurostat.

A similar case could be made for Portugal, for which housing and energy price increases are far below the EU average, and considering that COVID-19 had long-lasting effect on the economy. Unlike most EU countries, Portuguese GDP is still below its 2019 level. A weak economic recovery combined with a mild impact on energy prices could explain the exceptionally (in relative terms) low inflation.

The ECB and the European Commission in their 2022 Convergence assessments have adduced similar arguments. Both institutions considered Malta and Portugal outliers in the calculation of the reference value, which led to a positive assessment of the price stability criterion for Croatia.

The identification of outliers entails some judgement about the situation at the time of the assessment, in the past, abrupt deviations in inflation led to a negative assessment. The case of Lithuania, illustrated in Box 1, is an example. A considerable upward revision of the inflation forecasts, also driven by energy and food prices, strongly influenced the convergence assessment, leading to a negative evaluation. Ex-

post, this turned out to be correct, but the effect was a delay in the euro accession of almost a decade.

#### Box 1: Lithuania's delay in joining the euro area

Lithuania was the last country to join the euro area, on 1 January 2015. This happened much later than the manifested political intention. The first formal application was filed in 2006 after the country joined ERM II in June 2004 and saw Slovenia passing the criteria test (Slovenia joined on 1 January 2007).

The European Commission and the ECB, however, warned the Lithuanian government that its inflation rate was in breach of the criteria to join the single currency area. At the time of application (February 2006), according to the inflation criterion that candidate countries must keep inflation within 1.5 p.p. of the average of the EU's three lowest inflation rates, the relevant inflation target for Lithuania's evaluation was 2.6%, while the country's relevant inflation rate 2.7%. For the time after the application, the assessments carried out by the [Commission](#) and the [ECB](#) in their respective 2006 Convergence Reports pointed to a materialisation of inflationary pressures in the near future.

For the remainder of 2006, Lithuania was expected to suffer greater inflation because of the tight labour market and the lagging pass-through of energy prices. Indeed, expanding economic activity was putting pressure on labour costs. In 2005, growth of nominal compensation per employee increased from 3.8% to around 9%, whereas nominal labour costs rose to 3.8%, from 1% in 2004. In addition, hourly labour costs accelerated to double-digit figures in all sectors during 2005. The evolution of the last metrics was mainly explained by the buoyant domestic demand supported, in part, by low rates and strong credit growth, as well as the tight labour market, suffering from migratory outflows and bottlenecks in some sectors.

The year 2005 was also considered a turning point for energy prices. During that year, commodity price increases led to a 9% increase in Lithuania's import prices. In addition, the anticipation of the end of a multi-year agreement with the Russian gas exporter Gazprom in 2006 resulted in a sudden spike of imported gas prices. If it is true that in January 2006, the evolution of gas prices only contributed to inflation by 0.1 p.p., the Commission expected a delayed impact because of the lagged adjustment of regulated prices for distributed heat. Moreover, since the average gas price in Lithuania was around 50% lower than prices in the EU, further price increases were expected.

Both reports also highlighted that other medium-term factors were pointing to higher inflation. Among them, the expected evolution of indirect taxes as well as increases in food prices. While increases in excise taxes and administrative costs were seen through the years 2004 and 2005, more increases were expected in the taxes levied on tobacco, to comply with the minimum required by the EU. In 2006, The Commission calculated that, without offsetting measures, the tobacco taxes would have an impact on inflation of around 2% in the period up to 2010. Food prices were considered another source of challenges to the sustainability of the inflation convergence. After Lithuania's EU accession and the changing conditions in the domestic market, a prolonged period of food price adjustment was expected. As this was coupled with dynamism of internal demand, Commission estimated that inflationary pressures on food prices would not abate in the short term.

Considering the array of different factors pointing to persistent high inflation, the Commission and the ECB assessed that inflation in Lithuania was likely to be higher than the reference value in the months ahead. Even though in 2006 the distance from the target was very small and political will to join the euro was very strong, the application was rejected. Besides the actual situation at the time of the application, the expected future dynamics, and more generally the country's medium-term prospects, mattered in the formulation of the final judgement. Ex-post, we know that in 2007 inflation rose above 10% and then fell dramatically, driven by a major economic crisis, which soon appeared to be the euro's major existential crisis. In the end, it took almost a decade for Lithuania to join the euro.

Source: Authors' elaboration.

#### 4.3.2. Medium-term prospects

The Russian invasion of Ukraine in February 2022 came at a time of already high inflation pressures, just as the European economy was recovering from its pandemic-induced recession. Supply chain disruptions and soaring commodity prices have rippled through European economies, affecting the convergence paths of all non-euro area countries. This economic uncertainty also casts a shadow over the medium-term outlook for Bulgaria and Croatia.

In the case of Bulgaria, one of the main vulnerabilities is linked to the country's dependence on Russian energy. Until the end of April 2022, the overwhelming majority of gas imports originated from Russia. Although the lack of diversification has left Bulgaria exposed, gas only makes up roughly 12 % of the overall energy mix, and therefore its role is not central (McWilliams et al., 2022). Gazprom's announcement to halt its exports to Bulgaria and Poland put Bulgaria in a difficult position. With one month's consumption in its stores, Bulgaria reacted quickly to secure gas through support from Greece. The liquefied natural gas (LNG) cargoes delivered through a terminal in Athens are providing short-term relief, while the gas interconnector between the two countries – constructed during the pandemic and set to start operation in June – can help provide longer-term energy security through gas from Azerbaijan (Koutantou, 2022; Wanat, 2022).

However, this diversification exercise will come at a cost: the price of gas could reportedly be 20-30 % higher than what Bulgaria paid previously to Russia, affecting industry and, ultimately, consumers. Given Bulgaria's intention to join the euro area in 2024, the developments in energy prices over the medium-term, especially towards the second half of 2022, could be a critical determining factor for the price stability criterion.

Croatia also experienced inflationary pressures in the run-up to 2022 due to a hike in energy prices (notably refined petroleum products) and raw materials on the global market. Uncertainty stemming from the war and the supply of commodities is also affecting Croatia's outlook, although the country's dependence on Russian gas imports at 28 % is considerably smaller than it was for Bulgaria (McWilliams et al., 2022). Authorities have recently introduced measures to alleviate some of the burden on the population and businesses, including value-added tax (VAT) reductions, vouchers for gas, and farmers receiving support for the purchase of mineral fertilisers. However, the International Monetary Fund (IMF) has warned that domestic inflationary factors, such as public sector wages, should be carefully measured to contain further price increases (IMF, 2022).

#### 4.3.3. Sound public finances

As noted in the introduction, the sound public finances criterion requires that Member States should not be subject to an excessive deficit procedure (EDP) Council decision under Article 126 TFEU. As the protocol on the EDP specifies that the reference values are a government deficit below 3 % of GDP and debt below 60 %, this criterion is often interpreted as an assessment of these values. However, it should be noted that even when these reference values are not achieved, Article 126 provides specific conditions for meeting this criterion. In addition, launching an EDP is the Council's responsibility, which lends a degree of flexibility to the assessment (Žáček, 2021).

Neither Bulgaria nor Croatia were under an EDP at the time of activation of the general escape clause of the SGP (March 2020). Given the possibility to deviate from the SGP requirements under the clause, the public finances criterion will not be mechanically assessed against the reference values set out in the protocol. Therefore, the fact that neither country was under an EDP previously could lead to them meeting this criterion automatically.



Based on the analysis conducted in Section 2.1, Bulgaria is forecasted to be above the deficit target in 2022, but would meet both the debt, which was below the 60 % in 2019 and remained such during the pandemic, and deficit targets in 2023. In the case of Croatia, already in 2021 the deficit fell below the 3 % (from 7.3 % in 2020) threshold, and it is forecasted to remain under the target in 2022 (2.3 %) and 2023 (1.8 %). The debt-to-GDP ratio, which reached 87 % in 2020, is projected to decrease substantially in 2022 (75.3 %) and further in 2023.

#### 4.3.4. Interest rates

For the purpose of the assessment of convergence, long-term interest rates reflect secondary market yields on a single benchmark government bond with a residual maturity of 10 years<sup>21</sup>. The long-term interest rate data was developed and collected from the central banks by the ECB on behalf of Eurostat.

In the case of the long-term interest rate stability criterion, previous Convergence Reports have also occasionally identified outliers. This was notably the case with Estonia in 2010, as the country had almost no long-term public debt, and therefore the assessment was based on alternative indicators. Moreover, since Estonia was among the three best performing countries in terms of price stability, the calculation was based exceptionally on the two other "best performers" (ECB, 2010). In 2012, Ireland was excluded, with the ECB stating that its "long-term interest rate [was] currently not an appropriate benchmark" and that it was "not only significantly higher than the euro area average, but it also substantially exceed[ed] the long-term interest rates of the other two best performing Member States in terms of price stability" (ECB, 2012).

As noted in the statement above, exclusions are linked to the identification of best performers in price stability. As countries with low inflation rates do not necessarily have the lowest long-term interest rates, such exclusions could in fact make it more difficult to meet this criterion. It is also legally more problematic, given that the protocol does not provide discretion to the ECB or Commission in the choice of best performers (Žáček, 2021).

Based on the latest data, both Croatia and Bulgaria are well below the running reference value. In the case of a reference value based on France, Finland and Greece (plus 2 percentage points), which correspond to 2.6 %, Croatia is well below (0.8 %) despite a steep rise over February and March 2022.

Similar conclusion holds for Bulgaria. The relevant interest rate was at 0.5 % in April 2022.

#### 4.3.5. Exchange rates

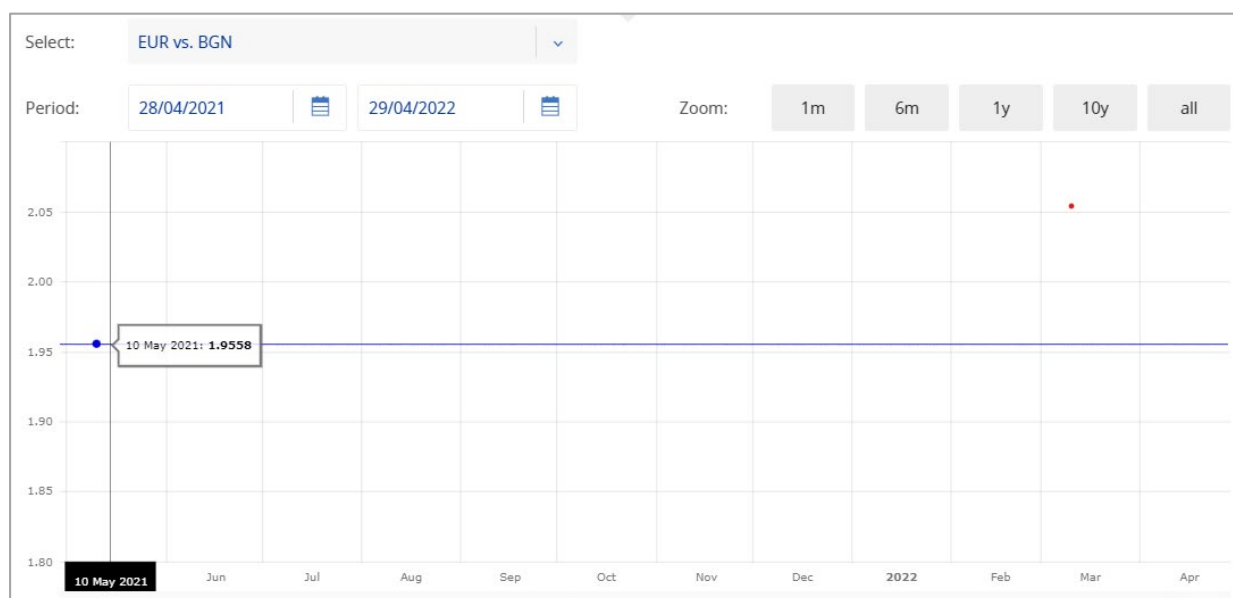
In 1997, Bulgaria introduced a currency board arrangement, pegging the lev to the German mark and then to the euro (at an exchange rate of 1.95583 BGN/EUR). The currency board arrangement implies that the central bank's monetary liabilities have to be fully covered by its foreign reserves, using the official exchange rate. In practice, even if the central bank issues short-term reference rates, it does not control them, as they are directly affected by the monetary policy of the euro area.

In July 2020, Bulgaria joined ERM II<sup>22</sup> and the lev kept the same central rate, fixed under the currency board arrangement. While a standard fluctuation band of  $\pm 15$  % is applicable to all currencies, Bulgaria committed unilaterally to continue its currency board arrangement. Despite the commitment, the official fluctuation margin can be applied and the ECB could intervene at the margins of the fluctuation band to sustain stability in case of tensions on the exchange rate.

<sup>21</sup> It is 7.5 years in the case of Croatia.

<sup>22</sup> Currently, ERM II includes the currencies of Bulgaria, Croatia and Denmark.

Figure 33: Bulgaria – BGN/EUR exchange rate



Source: [ECB](#).

In July 2020, the Croatian kuna was also included in ERM II with a central rate set at 1 euro = 7.53450 kuna. The Croatian kuna participates in ERM II within the standard fluctuation band of  $\pm 15\%$  of the central rate, and fluctuations have remained within the band since then (see Figure 34). The exchange rate criterion is not expected to be a source of concern for Croatia.

Figure 34: Croatia - HRK/EUR exchange rate



Source: [ECB](#).



#### 4.4. Croatian recovery and resilience plan

Croatia is the country that will receive the largest support from the RRF, with a grant envelope of around 12 % of its GDP (Pfeiffer et al., [2021](#)). The Croatian plan was submitted on 15 May 2021. A positive assessment was given by the European Commission on 8 July 2021, which was then approved by the Council on 28 July 2021. The plan includes 144 investments and 68 reforms (see Table 5) for a total amount of EUR 6.3 billion, which covers all the available RRF grants (no loan has been requested so far).

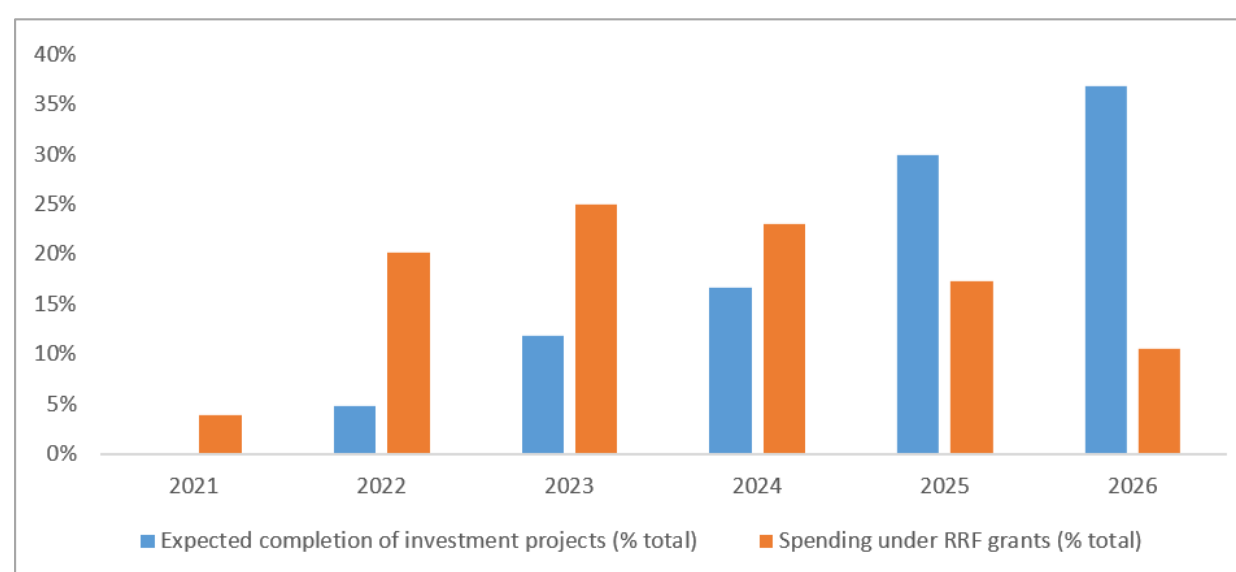
Table 5: Timeline for completion of reforms and investment projects under Croatian NRRP

	2020	2021	2022	2023	2024	2025	2026	Total
RRF investment projects (number)	0	0	7	17	24	43	53	144
RRF investment projects (% total)	0 %	0 %	5 %	12 %	17 %	30 %	37 %	100 %
RRF reforms (number)	1	7	20	8	8	9	15	68
RRF reforms (% total)	1 %	10 %	29 %	12 %	12 %	13 %	22 %	100 %

Source: Authors' compilation, based on Croatian NRRP.

As the table above shows, the completion of the reforms is spread over the entire RRF period, with the largest number of investments concentrated mainly in the years 2025 and 2026. This is not to say that Croatia will spend the RRF grants only at the end of the RRF period. On the contrary, as shown in the figure below, the planned spending starts already in 2022 and is evenly distributed across the years before 2025 and 2026.

Figure 35: Planned Croatian expenditure financed by RRF grants, and expected completion of investment projects

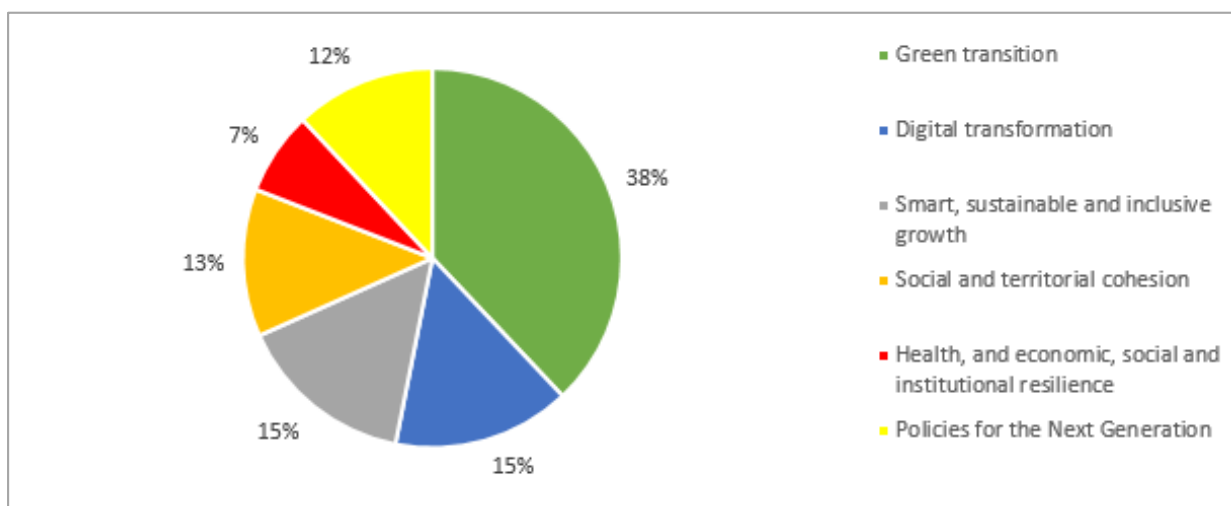


Source: Authors' compilation, based on the Croatian Stability Programme (Ministry of Economy and Finance, [2021](#)), Croatian NRRP (European Commission, [2021](#)).

#### 4.4.1. Investments in the NRRP

Based on the RRF Regulation's six pillars of classification, Croatia is allocating 53 % of its investments to the green transition (38 %) and digital transformation (15 %) pillars of the RRF. The remaining 47 % of investments are divided between the policies for the next generation (12 %), smart, sustainable and inclusive growth (15 %), health, and economic, social and institutional resilience (7 %) and social and territorial cohesion (13 %) pillars. With respect to the distribution of funding across economic activities, the Croatian plan distributes the largest share of resources to the construction sector (18 %), education (15 %), activities related to water supply, sewage, waste management and remediation (14 %) and financial and insurance activities (12 %).

Figure 36: Croatian investments by six RRF pillars (% total)



Source: Authors' compilation, based on Croatian NRRP.

Under the *green transition* pillar, the plan includes several investments that aim to modernise and transform public transport, making it more sustainable; to renovate public and private buildings to make them energy efficient; and to increase the use renewables energies. The most relevant projects in this respect concern the renovation of public sewerage networks, the construction of 12 treatment plants to avoid wastewater (EUR 401 million) and the upgrade and digitalisation of the electricity network (EUR 387 million). In addition, the plan includes EUR 252 million investment to support enterprises in their transition to an energy- and resource-efficient economy (C1.1.1.R4-I1), EUR 197 million for the development and implementation of a new urban mobility ecosystem project (C1.4.R5-I2), EUR 140 million for the reconstruction of the existing and construction of second track of public railways (C1.4.R2-I1), EUR 145 million for a waste disposal reduction programme (C1.3.R2-I1), EUR 157 million for a natural disaster risk reduction programme (C1.3.R1-I3) and EUR 137 million for a public water supply development programme (C1.3.R1-I2).

Under the *digital transformation* pillar, a wide range of projects are included in the plan, with the objectives being the digital transformation of PA and public services, as well as public transport, and the increase of connectivity in the country. EUR 106 million will be invested under the National Framework Programme for the Development of Broadband Infrastructure, EUR 84 million in digital tools will be increased in higher education centres and EUR 65 million in new electronic tolling systems will be created for motorways.

Under the *policies for the next generation* pillar, the plan includes an ambitious investment in early childhood education and care (ECEC), notably targeted at kindergartens, for a total of EUR 215 million (C3.1.R1-I1), and allocates EUR 302 million to primary schools (C3.1.R1-I2). EUR 75 million is allocated to

the construction, upgrading, refurbishment and equipping of secondary establishments (C3.1.R1-I3) and EUR 84 million to the digital transformation of higher education (C3.1.R2-I1).

Under the *social and territorial cohesion* pillar, the most important investment of the plan consists of EUR 591 million for the renovation of buildings damaged during the 2020 earthquakes (C6.1.R1-I2).

Finally, under the *smart, sustainable and inclusive growth* pillar, the plan mostly includes investment targeted at the tourist sector and research and innovation. EUR 123 million is allocated to regional diversification and specialisation of Croatian tourism through investment in the development of high added-value tourism products (C1.6.R1-I1), while EUR 165 million will go towards strengthening the competitiveness of entrepreneurs and fostering the green and digital transition of the sector (C1.6.R1-I2). In addition, EUR 318 million is allocated to boosting research and innovation capacity (C3.2).

#### 4.4.2. Reforms in the NRRP

More than the investment, to understand the long-term impact of the Croatian recovery and resilience plan, we should look at the reforms. In this respect, the plan includes ambitious measures regarding the requirements to access the euro area and, more broadly, addressing structural challenges in the Croatian economy.

A first group of reforms is explicitly linked to the Croatian Action Plan for participation in ERM II and to post-ERM II accession commitments. In particular, component 2.8 of the plan on *Strengthening the anti-money laundering framework* has the explicit objective of "strengthen[ing] the ability of the Croatian authorities (supervisory authorities, the Anti-Money Laundering Office, law enforcement authorities) to fight money laundering and the financing of terrorism, improve their coordination and cooperation and further raise awareness for all stakeholders involved", providing specifically that "this reform is in line with Croatia's Action Plan for participation in the European Exchange Rate Mechanism II (ERM II)". Four main reforms are included in this component. The first reform intends to increase awareness about the importance of preventing money laundering, and includes the creation of a framework for regular training of the responsible authorities in charge of fighting money laundering (C2.8.R1). The second reform regards the improvement of cooperation in the exchange of best practices between the Anti-Money Laundering Office and the supervisory authorities (C2.8.R2). The third reform regards the implementation of the Action Plan to reduce identified money laundering and terrorist financing risks (C2.8.R3). Finally, the fourth reform looks again at enhancing anti-money laundering and counter-terrorism financing (C2.8.R1).

The second component of the plan explicitly linked to ERM II accession commitments involves improving the management of the state's assets (C2.4), with the aim of promoting economic development and increasing the overall efficiency of state-owned enterprises (SOEs). Five reforms are included in this component. First, the plan envisages a revision and rationalisation of Croatian SOEs (C2.4.R1). The second reform concerns the improvement of SOE governance (C2.4.R2). The third reform aims to strengthen human capacity to monitor corporate governance in SOEs (C2.4.R3). The final two reforms aim to reduce the number of SOEs that are not of particular interest (C2.4.R4) and to optimise state-owned property management (C2.4.R5).

In addition to the euro area accession-related interventions, the plan includes a series of important measures primarily focused on the areas of labour market, justice and PA, which are expected to have a positive impact on the long-term growth of the Croatian economy.

With respect to the labour market, Croatia has long been suffering from one of the lowest employment rates in Europe, particularly among the elderly population and young people; one of the lowest numbers of total years in employment (32.8 years in Croatia vs 35.7 EU average in 2020); and one of the

highest shares of temporary workers. In addition, Croatia presents one of the slowest transition periods from education to the labour market, as well as one of the lowest participation rates in adult learning. The RRF plan in part aims to address such challenges through the reinforcement of Croatia's public employment services, as well as the creation of a voucher system for adult education, training and upskilling, via a new Adult Education Act in line with the European Qualification Framework (C4.1.R3). To include more vulnerable groups in the labour market (notably long-term unemployed or inactive), the plan intervenes by strengthening the administrative capacity and staff skills of the public employment services, improving profiling systems, introducing new ad hoc plans for integration into the labour market and strengthening activation programmes for these people. In addition, the plan includes a reform of the labour legislation (C4.1.R4), with the aim of improving work-life balance and working conditions. The reform also intends to regulate new forms of work and foster the transition from temporary or part-time contracts to open-ended ones, as well as tackling undeclared work. This intervention includes the entry into force of the new Minimum Wage Act, which shall "exclude the various wage supplements from the minimum wage and mandate minimum increases for overtime, night work, Sundays and public holidays".

An important reform that is expected to both benefit the younger generation and facilitate female employment in Croatia with positive structural effect is the education reform (C3.1.R1). With the aim of ensuring that all children can attend early childhood education regardless of their economic and social background, the reform intervenes first at the pre-primary school level. It does this by changing the funding mechanism and increasing the role of the state in providing financial resources, instead of the local municipalities, and expanding the coverage. Second, the reform introduces the full-day teaching model in primary schools. These interventions are expected to address two structural problems in the Croatian education system that negatively affect work-life balance (especially that of women): the low participation rate in ECEC services and the reduced number of hours in primary education.

On the judicial side, before the pandemic various challenges hampered the Croatian judicial system. The time needed to resolve civil and commercial cases at first instance, as well as the number of pending civil and commercial cases at first instance, were negatively affecting the efficiency of the system, with Croatia performing the worst in the EU, only after Italy and Greece (EU Justice Scoreboard, [2020](#)). Similarly, in criminal matters, the Croatian judicial system's efficiency was characterised by a high number of pending cases (measured by the number of unresolved cases per 100 inhabitants) in first (1.85) and second instance (0.30), both above the European average of 0.44 and 0.04, respectively (CEPEJ, [2020](#)). The plan intervenes with an ambitious reform to increase the efficiency of the justice system, with the aim of reducing backlogs and shortening court proceedings and increasing both the efficiency and transparency of the justice administration (C2.5.R1).

Finally, before the pandemic the Croatian PA was characterised by low efficiency and low trust among the citizens. In addition, the PA presents a fragmented structure at the local level, which is in part due to the lack of cooperation between countries and weak cooperation in small cities and municipalities (European Commission, [2020](#)). To tackle these challenges, the plan includes various reforms. The first group of measures aims to increase the administrative capacity to absorb the new funds coming from the RRF, and to try to prepare the competent authorities to correctly implement all the measures included in the plan. A second group of measures focuses on strengthening the digitalisation of the PA through a new Digital Croatia Strategy (C2.3.R1), improving the interoperability of information systems (C2.3.R2) and strengthening connectivity (C2.3.R4). Finally, the third and most important group of reforms intervenes directly in improving recruitment in the civil service (C2.2.R1), introducing a new wage and work model in public services (C2.2.R2) and improving the sustainability of local administration (C2.2.R4).

In this respect, four important additional reforms are worth mentioning. Two reforms are aimed at '[s]trengthening the capacity to design and implement public policies and projects' (C2.1). The first is the reform that introduces the professionalisation of strategic planning to strengthen the mechanisms for the management and integration of public policies (C2.1.R1). The second is the reform that aims to strengthen the capacity to prepare and implement EU projects (C2.1.R2). Two other reforms are instead linked to strengthening the fiscal framework (C2.7). The first involves the improvement of fiscal planning and reporting (C2.7.R1), while the second concerns the development of a structural macroeconomic model of the Croatian economy for the production of medium-term macroeconomic forecasts. This should simulate the effects of economic policies and assess the impact of shocks, thus supporting the Ministry's capacity to prepare budgetary forecasts. (C2.7.R2).

#### 4.4.3. Long-lasting impact of the NRRP

Overall, the ambitious set of reforms and investments included in the NRRP presented by Croatia are expected to have a positive long-lasting impact on the economy, bringing changes to various policy areas and strengthening the country's resilience. In this respect, it is worth highlighting that the Croatian plan has benefited since the very beginning from broad political support by all parties in parliament, as well as from an efficient and centralised governance system that facilitates coordination among multiple administrative levels. As observed in the previous section, the measures included in the plan largely address some of the key structural challenges characterising the Croatian labour market, education system, judicial system, business environment and PA. The combined intervention on the labour market, notably on the supply side, through significant investment in upskilling and reskilling as well as in public employment services, together with coherent reform-investment intervention in the pre-primary and primary education system, should have a lasting impact on the overall economy, increasing (female) employment and growing productivity. At the same time, SOE reforms and investment in SMEs and R&D are expected to have a positive impact on the competitiveness of the Croatian economy, together with the important reform of the judicial system that is expected to decrease the length of trials, increase legal certainty and attract private investments. With respect to the judicial system reform, the plan coherently accompanies the reform of investments mostly addressed at the digitalisation of the system.

Of crucial importance for the success of the plan will be the reform of – and related investments in – Croatia's PA, especially the reform of local authorities. This aims to partially address the high fragmentation of local PA, which often suffers from inefficiencies due to inadequate financial resources that ultimately favour divergence within the country in public service provision. The PA reform not only affects the local authorities, however, but also aims to improve the quality of public policy making. It further aims to enhance coordination among relevant ministries and improve the implementation phase, with the objective of improving the quality of public policy making. Also related to the PA reforms are the two measures included in the plan to reinforce the budgetary framework and monitor contingent liabilities at central and local level. These are expected to improve the public finance sustainability of Croatia, which is a pre-condition of macroeconomic stability and economic resilience.

Two additional groups of interventions are crucial to guarantee the long-lasting impact of the plan, also in light of euro area accession. First, the reforms of the business and regulatory environment (C1.1.1.R1), the liberalisation of regulated professions (C1.1.1.R2) and the new strategic framework for the promotion of private investment (C1.1.1.R3) are expected to help achieve better allocation of capital resources within the economy and incentivise private sector investment. They are also expected to reduce parafiscal charges and excessive product and services market regulation, thereby increasing access to credit.

Finally, the reforms on the governance of SOEs and the sale of non-strategic assets are expected to contribute to the fulfilment of Croatia's post-ERM II accession commitments. Overall, the improvement of corporate governance in strategic SOEs and consequently their efficiency, and a reduction in the number of SOEs in the portfolio of government assets, are expected to lead to a distinct rise in overall productivity.

#### 4.5. Bulgarian recovery and resilience plan

The Bulgarian plan was submitted on 15 October 2021. The Commission assessed it positively only on 7 April 2022, after long negotiations with two different governments. The plan includes 58 investment projects for a total amount of EUR 6.9 billion. So far, only grants have been requested, although the plan indicates that Bulgaria may ask for loans by 2023. In addition, Bulgaria has included 47 reform projects aimed at addressing the structural problems of the Bulgarian economy. The completion dates of reforms are dispersed across the whole RRF period, as shown in the table below, with the greatest number of reforms concentrated mostly in the years 2022, 2023 and 2026.

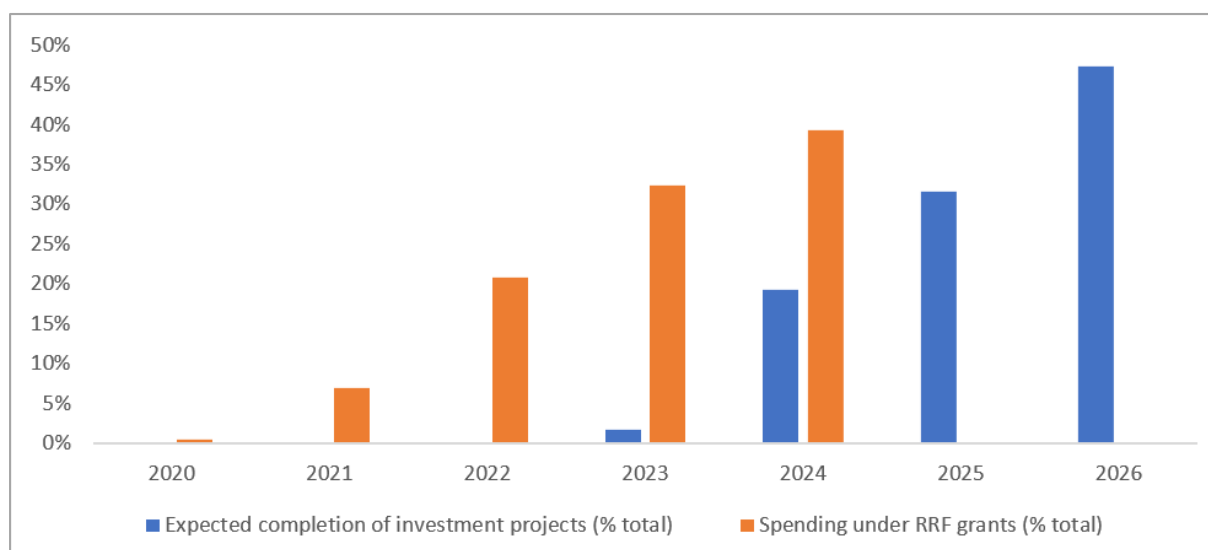
Table 6: Timeline for completion of reforms and investment projects under Bulgarian NRRP

	2020	2021	2022	2023	2024	2025	2026	Total
RRF investment projects (number)	0	0	0	1	11	18	27	57
RRF investments (total)	0 %	0 %	0 %	2 %	19 %	32 %	47 %	100 %
RRF reforms (number)	1	3	10	16	5	2	10	47
RRF reforms (% total)	2 %	6 %	21 %	34 %	11 %	4 %	21 %	100 %

Source: Authors' compilation, based on Bulgarian NRRP.

Like Croatia, Bulgaria will complete the investment projects at the latest stage of the recovery mechanism, i.e. in 2025 and 2026. However, the planned spending begins already in 2021. As indicated in the figure below, the expected recovery investment is evenly spread across the years before 2025 and 2026.

Figure 37: Planned Bulgarian expenditure financed by RRF grants, and expected completion of investment projects

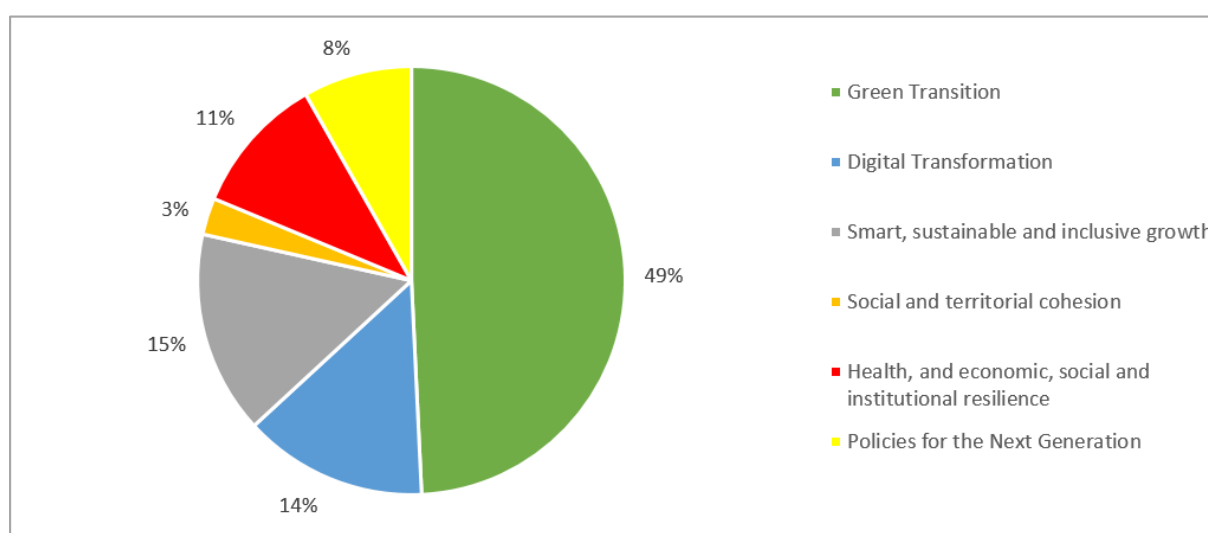


Source: Authors' compilation, based on the Bulgarian Convergence Programme (Ministry of Economy and Finance, 2021), Bulgarian NRRP (2022).

#### 4.5.1. Investments in the NRRP

Based on the RRF Regulation's six-pillar classification, Bulgaria is allocating 63 % of its investments to the green transition (49 %) and digital transformation (14 %) pillars of the RRF. The remaining 37 % of investments are divided between the policies for the next generation (8 %), smart, sustainable and inclusive growth (15 %), health, and economic, social and institutional resilience (11 %) and social and territorial cohesion (3 %) pillars. With respect to the distribution of funding across economic activities, the Bulgaria plan is distributing the largest share of resources to the electricity, gas, steam and air conditioning supply sector (26 %), education (11 %), transport (11 %) and human health and social work activities (11 %).

Figure 38: Bulgarian investments by six RRF pillars (% total)



Source: Authors' compilation, based on Bulgaria NRRP.



Under the *green transition* pillar, the plan includes an ambitious set of measures that aim to accelerate the transition to a low carbon economy. Two are the key investment projects. First, the plan invests EUR 606.6 million in supporting the renovation of building stock to improve its energy efficiency by reducing primary energy consumption by at least 30 % on average (C4.I1). Second, the plan invests in renewable energy alternatives, notably EUR 797 million in the production of green hydrogen and biogas, EUR 341 million in a geothermal power plant for the production of electricity and heat and EUR 386 million in household support to install solar systems for domestic hot water and photovoltaic systems. Additional relevant green investments include the procurement of new trains owned by the Bulgarian State and run under the Public Service Contract (EUR 340 million) and the creation of a fund to promote the technological and ecological transition of agriculture (EUR 223 million).

Under the *digital transformation* pillar, the Bulgarian plan includes a component dedicated to digital connectivity. It entails three key investments, the most important of which consists of EUR 269 million dedicated to the large-scale deployment of digital infrastructure. The actions under this investment aim to develop the state backbone network – the Single Electronic Communications Network (SECN) – by increasing its transmission capacity and ensuring connectivity to all municipal centres, to provide ultra-fast internet connectivity for universities and research organisations, and to support the deployment of very high-capacity networks in rural and sparsely populated areas.

Under the policies for the *next generation* pillar, the intervention is threefold. First, the plan invests EUR 245 million in modernising teaching tools and enhancing learning in the fields of science, technology, engineering and mathematics (STEM) subjects in Bulgarian schools, through the construction and/or refurbishment of one national and three regional STEM centres, as well as the establishment of more STEM laboratories in schools. Second, EUR 290 million is allocated to the construction and renovation of educational facilities, including kindergartens, schools (vocational and upper secondary), student dormitories and university campuses. Third, the plan invests EUR 164 million in improving the upskilling and reskilling of the workforce, with a focus on digital skills.

Under the *smart, sustainable and inclusive growth* pillar, the major investment consists of support for SMEs and mid-caps to deal with the green transition and digital transformation changes through financial instruments and grants (EUR 688 million). The programme consists of three funds:

- fund 1 - growth and innovation;
- fund 2 - green transition and circular economy; and
- fund 3 - climate neutrality and digital transformation.

Finally, under the *health, and economic, social and institutional resilience* pillar, the bulk of intervention goes towards the modernisation and improvement of the healthcare system to enhance the provision of paediatric and oncological care (EUR 178 million), and to reform the building stock of the facilities where social services are provided to people with disabilities and older people (EUR 328 million).

#### 4.5.2. Reforms in the NRRP

As observed above, the Bulgarian plan includes 47 reforms that touch upon various structural challenges of the economy. Contrary to the Croatian plan, none of the reforms included in the plan are explicitly linked to the euro area accession commitments. Yet, the plan includes important interventions in line with the Croatian plans, including the reform of the governance framework for SOEs (C10.R7) and the strengthening of the anti-money laundering framework (C10.R8). The former intervention introduces a state ownership policy, which shall include the justification and objectives for the state's participation in SOEs, as well as the role of the state in the management of SOEs and in



the implementation of the policy. The latter intervenes by enhancing the capacity of the Financial Intelligence Unit to analyse suspicious transaction reports, adopting an action plan to mitigate the money laundering and terrorist financing risks identified through the national risk assessment, as well as updating the national risk assessment. Equally important is the anti-corruption reform (C10.R2), which aims to further combat corruption at all levels of PA, justice and prosecution systems, including through the establishment of an anti-corruption body, based on the existing Anti-Corruption and Illegal Assets Forfeiture Commission, with the authority to investigate and use the evidence it gathers in criminal proceedings, subject to the appropriate legal safeguards for the rights and freedoms of individuals and businesses.

Like Croatia, the Bulgarian plan includes a reform of the justice system that aims to improve its accessibility, effectiveness and predictability. One of the main stumbling blocks of the Bulgarian judicial system is the lack of statistical information, which prevents a proper assessment of its performance. Additionally, despite recent improvements, the perception of the independence of judges in the country remains a problem (Eurobarometer, 2020). To this end, the reforms included in the plan intervene by introducing the digitalisation of the justice system. To improve access to justice, the reform also includes legislative measures to broaden the scope of free legal assistance and exemptions from court fees. Finally, the reform includes the adoption of a roadmap for the implementation of judgments of the European Court of Human Rights, which shall include specific measures, timelines and responsible institutions. Two additional reforms are worth mentioning: the strengthening of the insolvency procedure (C10.R4) and the introduction of mandatory judicial mediation in certain civil and commercial cases (C10.R3).

Beyond the justice system, the quality of institutions in Bulgaria remains overall low in terms of policy planning, development and coordination, transparency in the selection of public officials, public procurement system and effectiveness. In this respect, the plan intervenes with four reforms. First, it includes a registry reform to unlock the potential of eGovernment to improve the organisation, quality and security of registers in the PA, enhancing the potential of eGovernment and reducing the administrative burden on citizens (C10.R6). Second, the plan includes a reform to improve the quality and predictability of the legislative process within the National Assembly (C10.R9). Third, it includes a reform of the public procurement process to improve transparency and increase competition (C10.R10). Finally, the plan proposes the introduction of an economic analysis council with the aim of laying the foundations for a process of gradual and sustainable provision of in-depth academic economic expertise to the Bulgarian government.

Surprisingly, the plan does not intervene in the labour market, which, despite positive trends in terms of record low unemployment rates (around 4.2 % in 2019), increasing employment rates (73 % in 2019) and wage growth (+5.4 % for employees in 2019), remains negatively affected by persistent challenges such as strong regional asymmetries, a high share of undeclared work, underdeveloped activation policies, persisting high rates of young NEETs (people not in education, employment or training) and chronic inefficiencies in integrating vulnerable groups into the labour market.

By contrast, the plan envisages two important interventions to address the country's social challenges. Before the pandemic, the social outlook in Bulgaria was in fact quite gloomy, with a persisting (though declining) poverty rate (32.2 % in 2019 vs 21.9 % EU average), a high severe material and social deprivation rate (22.1 % in Bulgaria vs 6.7 % EU average) (Eurostat, 2020), the highest income inequality rate with an S80/S20 quintile share ratio equal to 8.35 (vs EU average 4.9) and one of the highest rates of children at risk of social exclusion (36.2 % vs EU average 24.2 %). These challenges partly derive from inefficient welfare provision, with Bulgaria having a comparatively lower impact rate of social transfers on poverty reduction (23.6 % vs 29.1 % EU average). The plan includes two reforms to address these

challenges. First, a reform of the minimum income scheme (C11.R1), which aims to improve the adequacy and coverage of the scheme by establishing a mechanism for an automatic annual update based on the at-risk-of-poverty threshold, and to modify the eligibility criteria. The second reform is of social services (C11.R2), to improve the provision of social services, including long-term care.

#### 4.5.3. Long-lasting impact of the NRRP

Contrary to Croatia, the drafting process of the Bulgarian recovery plan and the negotiations with the European Commission took over a year. Internal political instability and lack of support from the national parliament decreased the ownership of the plan, and both of these factors risk having a negative effect on its implementation, especially considering the significant number of reforms and investments included in it. This said, the plan is expected to have an overall positive and long-lasting impact on the Bulgarian economy, even though – given the current political and economic context – the plan alone does not seem to be enough. As illustrated by the IMF (2022), despite its quick post-pandemic economic recovery, Bulgaria will be significantly affected by the war in Ukraine both in terms of slowing growth and increasing inflation. High energy dependence on Russia exposes the vulnerability of Bulgaria, which will now have to accelerate its completion of the interconnector with Greece, expected in summer 2022.

In this context, full implementation of the structural reforms included in the plan could have a significant positive economic effect. Particularly important are the anti-corruption reforms and the judicial system reform, which are expected to improve the administrative capacity of Bulgaria whilst reducing bottlenecks, improving check and balance, raising ethical standards and promoting the rule of law. Also welcomed are the reforms of the policymaking process, especially given the significant amount of public investment to be absorbed under the RRF and in view of access to the euro area. The reforms include digitalisation of the PA, the introduction of new economic forecast models, improvements to the quality and predictability of the legislative process, a reform of the SOEs and transparency in the public procurement framework.

In terms of fiscal sustainability and inclusive growth, the plan is not expected to have a long-lasting impact. Indeed, the plan misses the opportunity to intervene on the labour market – as observed above – by tackling some of its structural challenges. Similarly, the plan remains silent on the review of the tax system and misses the opportunity to increase revenues and redistribution. As observed in the *Tax Policy in the EU Survey 2020*, the Bulgarian tax system is indeed regressive. The largest burden of personal income tax and social contributions is on low-income earners, especially when considering the whole tax-benefit picture. In addition, Bulgaria is characterised by high share of foregone tax revenue, due to the shadow economy and lack of compliance with tax obligations. The lack of intervention in this respect might undermine the impact of the plan, especially in times of war that are already hitting the most vulnerable groups the hardest. Furthermore, the plan only slightly intervenes to address inequalities and to move towards a system of equality of opportunities. The interventions on minimum income schemes and social services are not adequately accompanied by interventions in education from early childhood, to break the cycle of disadvantage from the start. Finally, in terms of fiscal sustainability, even though the Bulgarian debt-to-GDP ratio is fully under control, some risks might emerge from the increasing and inefficient costs of the pension system. As stressed by the IMF, a review in this respect could be of help to target both the fiscal sustainability of the pension system and the adequacy of the pension benefits.

## 5. SUSTAINABILITY OF CONVERGENCE CRITERIA

As mentioned in the introduction, in addition to the nominal convergence criteria, Article 140(1) TFEU implies that additional factors relevant to economic integration and convergence should be taken into account to assess the sustainability of the convergence beyond the time of the assessment.

Additional factors include: i) market integration, which is usually assessed through trade, FDI and single market functioning, ii) the situation and developments in balances of payments, which are usually assessed through the external balance, and iii) the development of unit labour costs (ULCs) and other price indices. Furthermore, since the financial crisis, the degree of financial integration and trends in the financial sectors have been taken into consideration. Since 2012, following the introduction of the European Semester, the convergence assessment has considered economic policy challenges facing the EMU, like fiscal sustainability, competitiveness, financial market stability and economic growth, in an integrated manner.

In practice, the new governance framework (six-pack) introduced in 2011 ensures that the systematic monitoring of fiscal policy is extended to macroeconomic indicators, through the macroeconomic imbalance procedure (MIP). Based on this, a large set of indicators (complemented by others) which can signal external, internal and employment imbalances, are readily available every year under the MIP scoreboard (see Table 7).

Table 7: MIP scoreboard

Indicator	Threshold	Member States in imbalance in 2020 (before COVID-19)
Current account balance as % of GDP, three-year average	+6 % and -4 %	UK, NL, MT, CY, DE, DK
NIIP as % of GDP	-35 %	SK, RO, PT, PL, HU, LV, CY, HR, ES, EL, IE, BG
Real effective exchange rate with HICP deflators, three-year % change	± 5 % for EA Member States and ± 11 % for non-EA Member States	UK, LT, EE, DE, CZ, BE
Export market shares, five-year % change	-6 %	SE
Nominal ULC, three-year % change	+9 % for EA Member States and +12 % for non-EA Member States	SK, RO, HU, LT, LV, EE, CZ, BG
Change in deflated house prices, one-year % change	6 %	SI, PT, NL, HU, LV, IE, CZ
Private sector credit flow as % of GDP	14 %	
Private sector debt as % of GDP	133 %	UK, SE, FI, PT, NL, LU, CY, FR, ES, IE, DK, BE
General government debt as % of GDP	60 %	UK, SI, PT, AT, HU, CY, IT, HR, FR, ES, EL, IE, DE, BE
Total financial sector liabilities, one-year % change	16.5 %	FI

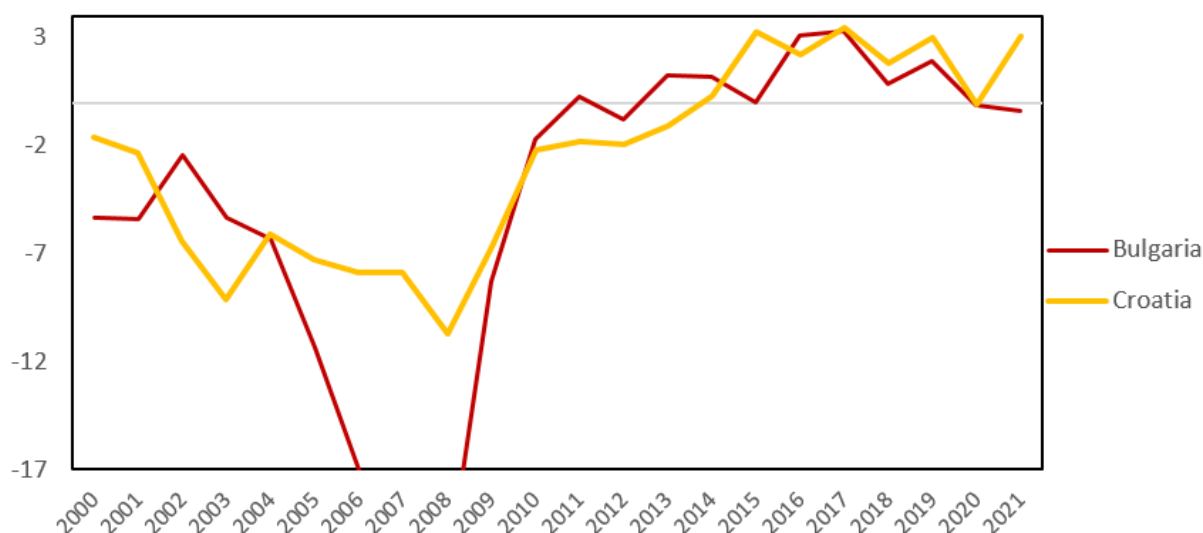
Indicator	Threshold	Member States in imbalance in 2020 (before COVID-19)
Unemployment rate, three-year average	10 %	CY, IT, HR, ES, EL
Activity rate % of total population (age 15-64), three-year change in p.p.	-0.2 p.p.	HR, ES
Long-term unemployment rate (age 15-74), three-year change in p.p.	0.5 p.p.	
Youth unemployment rate (age 15-24), three-year change in p.p.	2 p.p.	

Source: Authors' compilation, based on [Eurostat](#).

## 5.1. Additional economic factors

Among the MIP scoreboard indicators, the current account was of particular interest in the aftermath of the GFC as a measure of reliance on external borrowing, and hence a warning signal of external imbalances. Indeed, up to 2009, very large deficits characterised many euro area (and other EU) countries that then experienced a major crisis. At that time, Croatia and Bulgaria also exhibited large deficits. Since 2013, however, the current accounts of both countries have moved into surplus. In Bulgaria, it only became slightly negative in 2021.

Figure 39: Current account, % GDP



Source: Eurostat, MIP scoreboard indicators.

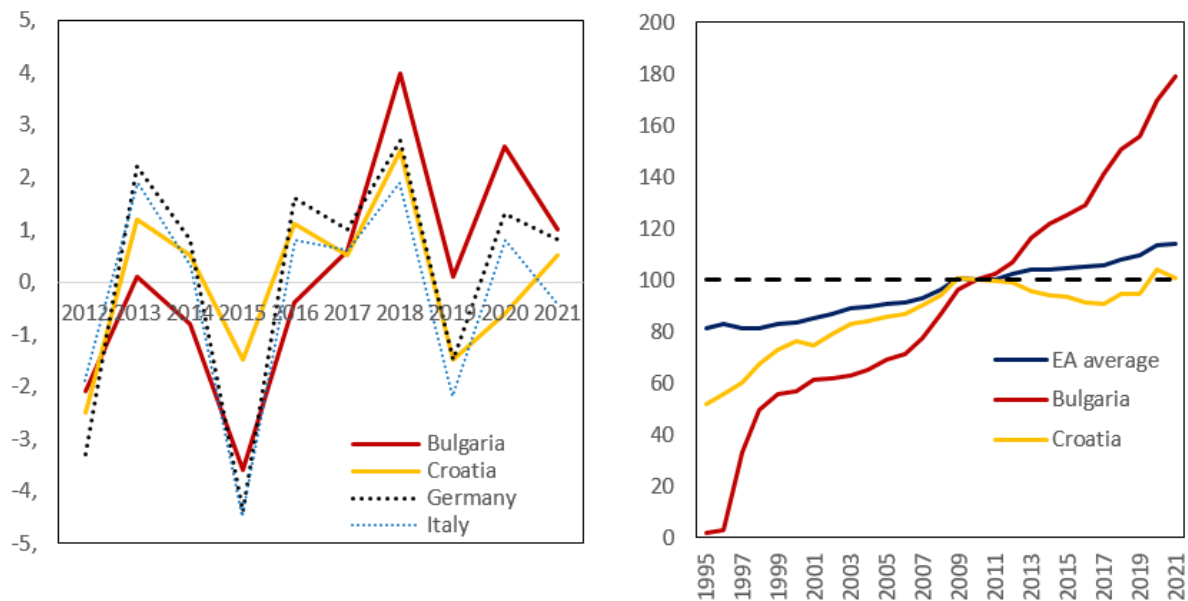
Note: Current account in Bulgaria was 23.9 % of GDP in 2007 and -22 % in 2008. Data are cut for visualisation purposes.

More generally, the external balances (i.e. current and capital accounts) have continued to record surpluses in the last seven years, with improvements mostly driven by the current account surplus.

When looking at the measures of price and cost competitiveness, one can see that the real exchange rates exhibit some volatility (after 2012) and quite a strong correlation between the two countries, but

also relative to euro area Member States (see Figure 40, left panel).

Figure 40: Real effective exchange rate, % change from previous year (left panel) and nominal ULC based on hours worked (right panel)



Source: Eurostat, MIP scoreboard indicators.

Note: 42 trading partners, based on HICP/CPI, positive value means real appreciation.

However, Bulgaria's real exchange rate (deflated by the consumer price index [CPI]) has appreciated quite strongly since 2016, signalling a deterioration of competitiveness. In the case of Croatia, the appreciation has been milder, turning into depreciation in 2019.

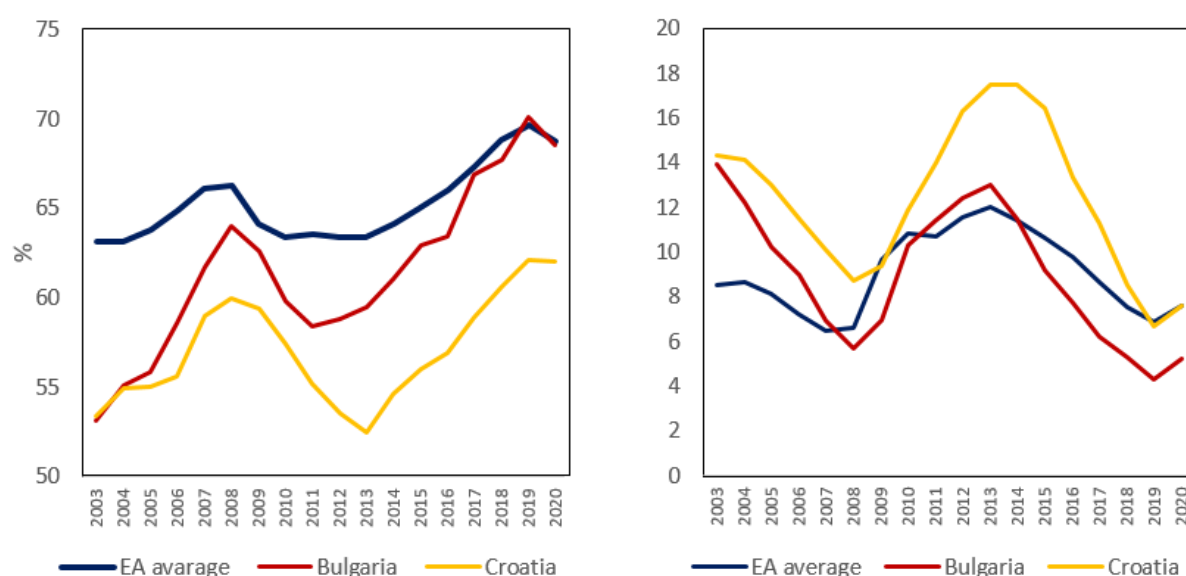
Dynamics in the nominal ULC in Bulgaria confirm the loss of competitiveness indicated by the real effective exchange rate (REER).

Figure 40, right panel, suggests that the ULC almost doubled in Bulgaria in little more than a decade. The situation appears very different in Croatia, where the ULC remained below the euro area average also after 2010.

However, if one considers the long-term trend in export market shares, Bulgaria's external competitiveness does not seem to have been affected much so far. Indeed, the five-year change used in the MIP scoreboard points to a positive value of about 15 % in 2019 and 2020. For Croatia, the share was above 20 % between 2017 and 2019 but then fell close to zero, due to the impact of the pandemic.

Lastly, both employment and unemployment exhibit positive developments (increase and decline, respectively) until 2019, and the changes experienced in 2020 seem in line with the euro area developments.

Figure 41: Employment (left panel) and unemployment rates (right panel), 2003-2020



Source: Eurostat, MIP scoreboard indicators.

### 5.1.1. Economic structure

As argued above, for assessing the long-term sustainability of the nominal convergence, real convergence matters. In practice, the latter can be affected by features of the economic structure of the country considered.

The COVID-19 crisis and the war in Ukraine have highlighted some risks associated with a specific characteristic of Croatia and Bulgaria.

In Croatia, the tourism industry has been booming in recent years and, in 2019, it contributed to about 25 % of total GDP<sup>23</sup>. In 2020, the pandemic exposed the country to a sudden stop, which resulted in a significant fall in GDP, putting under the spotlight the limits of high reliance on a single industry. However, and against expectations, in 2021 the recovery was quite exceptional and tourism contributed to growth in Croatia more than in any other EU country. Besides the risks of concentration of production in a single industry, high dependency on tourism could lead to a decline in productivity in the entire economy. Productivity is typically low in the tourism sector and, unless other sectors can compensate for it, it could weight negatively on long-term GDP potential.

In the case of Bulgaria, the war in Ukraine and subsequent energy crisis put under the spotlight the country's high energy dependency on Russia. In Bulgaria, coal and nuclear are the main sources of electricity generation (about 40 % and 37 % respectively)<sup>24</sup>, but the country is almost entirely reliant on Russia for gas and oil. Gazprom supplies nearly all the country's gas and about 60 % of oil<sup>25</sup>. The announcement on 30 April 2022 that Gazprom was cutting off gas supplies is raising challenges for the country. These are unlikely to be in form of shortages, but higher prices seem a certainty. The country has alternatives to Russian gas, such as LNG supply and, in the near future, a connection through Greece

<sup>23</sup> According to Orsini and Ostojčić (2018) International tourists' expenditure in Croatia amounts to almost 20 %. Total travel and tourism sector is estimated at 25 % in Pervan and Jurić (2021).

<sup>24</sup> International Trade Administration, "Bulgaria - Country Commercial Guide", available at: <https://www.trade.gov/country-commercial-guides/bulgaria-energy>.

<sup>25</sup> German Federal Ministry for Economic Affairs and Climate Action, "Energy Security in Europe – National Perspectives Part 2: Bulgaria", <https://www.euki.de/en/news/energy-security-bulgaria/>.



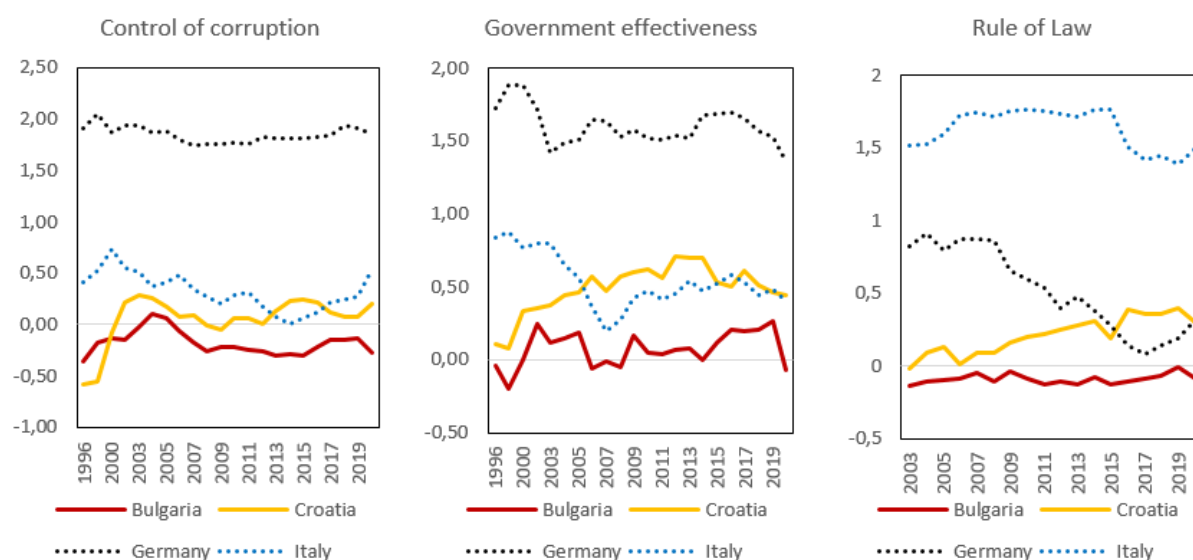
that will ensure the supply of gas from Azerbaijan. Higher energy prices, however, will affect inflation dynamics. While this risk needs to be acknowledged, other countries in the euro area are facing very similar challenges.

### 5.1.2. Institutional factors

In addition to economic factors, quality of government and of governance are potential structural factors that could have a lasting effect on the convergence paths of the two countries and potentially hinder the sustainable achievement of convergence criteria as well as legal convergence.

Among the several dimensions of governance, corruption, government effectiveness and rule of law are the most relevant for the purpose of long-term sustainability. According to the World Bank's Worldwide Governance Indicators (WGIs), Bulgaria is the worst performer among the selected countries (see Figure 42), and more generally one of the worst performers in the EU across all WGI indicators.

Figure 42: Quality of governance indicators (selected countries), 1996-2020



Source: [WGI](#).

An issue with government effectiveness, which is often a proxy for administrative capacity, can raise expectations of difficult implementation of legislative changes and capacity to deal with a more complex system of rules and regulations. Similar reasoning applies to the existence of widespread corruption, which could negatively affect the functioning of the economy and hinder the functioning of the administrative system.

### 5.1.3. Perception

At the times of the euro area enlargement, in many countries the introduction of the euro was accompanied by the fear that this would lead to higher prices. The main concern was that sellers would use the introduction of the new currency to "round up" prices, while salaries and wages would be converted exactly. Based on experience, the introduction of the euro was often accompanied by a small uptick in prices, essentially during the first few months. There is no robust evidence, however, that the euro led to permanently higher inflation. Yet, a one-time jump in prices can (as happened in some countries) attract popular attention, as it is often experienced by a large share of citizens. In practice, higher prices through "rounding up" often occurs in services (personal services, restaurants, household

services), which consumers buy regularly, thus creating the subjective impression of a large overall increase in prices<sup>26</sup>. To some extent, it is unavoidable that the changeover to the euro will create the impression that prices have increased. Some research<sup>27</sup> suggests that the mere change of currency (and units of account) can be unsettling for individuals, and the currency transition can lead to psychological costs, especially for the old, the unemployed, the poorly educated and households with children.

Fears of higher prices may be particularly relevant to Bulgaria, where popular concern about the introduction of the euro is rising<sup>28</sup>, despite the firm commitment of the national authorities. Negative perception and psychological factors may be exacerbated by the high and growing inflation rates that the country is currently experiencing.

By contrast, in Croatia, public support for the euro increased in 2021. According to a survey of the Croatian National Bank (2021), about 45 % of the population support accession, whereas less than 20 % oppose it. Supporters see the use of the euro as an opportunity for an economy that depends heavily on tourism and would experience a simplification in payments. Yet, in Croatia as well, those against the euro seem mostly concerned with fears of rising prices, which will result in a decline of living standards and dwindling purchasing power.

It is worth adding that most of the debt in Croatia is denominated in euro. While the exchange rate is fixed, the introduction of the euro would formally eliminate any exchange risk in times of rising uncertainty. Finally, Croatia has already been given the green light to start preparing to mint euro coins, hence the country is also getting ready for the actual transition.

---

<sup>26</sup> Among others, see Beblavy (2010).

<sup>27</sup> See for instance, Otrachshenko et al. (2016).

<sup>28</sup> This point was emphasised during one of the interviews with the experts.



## 6. LEGAL CONVERGENCE

The assessment of the compatibility of legislation, which is defined in Article 140 (1) TFEU, entails an examination of national central banking legislation in the light of Articles 123, 124, 130 and 131 of the Treaty, as well as the Statutes of the ESCB and the ECB, and other aspects relating to the integration of NCBs into the ESCB (Article 127 (1) and (2) TFEU). The primary focus of the assessment is on the national legal framework governing central bank independence, the prohibition of monetary financing and privileged access and, last but not least, central bank integration into the ESCB.

The compatibility requirement of Article 131 of the Treaty may not entail legal harmonisation, but it does require the removal of any legal inconsistencies that are liable to infringe the irrevocable conferral on the EU of competence in monetary matters. Being instrumental to the promotion of transnational regulatory convergence, the compatibility requirement is also interpreted broadly so that national legislation is aligned with the relevant EU legislation<sup>29</sup>.

The decision to abrogate the derogation of a Member State like Croatia or Bulgaria lies with the Council. It depends on the fulfilment of all the criteria laid down in Article 140(1) of the Treaty, and takes into account the findings of the Convergence Reports submitted by the Commission and the ECB respectively. The Council makes a decision based on the Commission's proposal and on the "recommendation of a qualified majority of those among its members representing Member States whose currency is the euro, after consulting with the European Parliament and after discussion in the European Council"<sup>30</sup>.

### 6.1. Croatia

The Constitution of the Republic of Croatia (OG 5/2014; Decision of the Constitutional Court No SuP-O-2014; 14 January 2014) and the Law on Hrvatska Narodna Banka (Law on Hrvatska Narodna Banka OG 75/2008 of 01 July 2008 as amended by Amendments to the Law on Hrvatska Narodna Banka OG 54/2013; 7 May 2013) (hereinafter the "HNB Act") govern the constitution and operations of the Croatian National Bank (Hrvatska Narodna Banka [HNB]). Both the Commission Convergence Report of June 2022<sup>31</sup> and the ECB Convergence Report of 2022<sup>32</sup> find Croatian Law to be fully compatible with the Treaty and the ESCB/ECB Statute.

During the drafting process of their respective Convergence Reports, the European Commission and the ECB coordinate their approach and, as a result, their findings are generally aligned. However, the legal departments of the two institutions had reached different conclusions on the fulfilment of legal convergence criteria in their 2020 Convergence Reports. The difference of opinions concerned certain legal aspects of central bank independence and could be attributed to the fact that the Commission and the ECB took a different approach to legal interpretation. While on the crucial question of central banking independence the Commission was satisfied that Article 71 of the HNB Act made specific reference to the principle of central bank independence as enshrined in the Treaty, the ECB took the view that this was not enough, and that, in the interests of legal certainty, greater textual clarity was required to bring the HNB Act in line with the TFEU. By insisting on greater legal clarity, the ECB tried to pre-empt a future situation where members of the decision-making bodies of a Member State's NCB

<sup>29</sup> "Commission of the European Communities v French Republic", C-265/95, ECLI:EU:C:1997:595. See Georgosouli (2021) for a general discussion of the treatment of national regulatory variation for the promotion of convergence in the Banking Union and the European System of Financial Supervision.

<sup>30</sup> Article 140(2) TFEU.

<sup>31</sup> European Commission (2022), "Convergence Report", June, Chapter 4.1.

<sup>32</sup> ECB (2022), "Convergence Report", June, Chapter 7.3.

were put under undue pressure and rendered unable to function in a smooth and continuous fashion<sup>33</sup>.

It should be noted that when Croatia joined ERM II, HNB entered into "close cooperation" with the ECB. Since the legal framework in the areas of banking supervision and resolution was a prerequisite for this step, all necessary legislative steps have already been completed. In addition, in December 2020 Croatia adopted a National Euro Changeover Plan containing all the major operational activities required for the transition from kuna to euro, and the actual minting of euro coins. These operational steps include the selection of euro coin national side designs, the acquisition and production of minting tools and coin test runs, and arrangements for the distribution of euro coins and withdrawal of the kuna<sup>34</sup>.

## 6.2. Bulgaria

The Constitution of the Republic of Bulgaria<sup>35</sup> the Law on the Bulgarian National Bank<sup>36</sup> and the Law on Counter-corruption and unlawfully acquired assets forfeiture<sup>37</sup> govern the constitution and operation of the Bulgarian National Bank (BNB). The 2022 Commission Convergence report<sup>38</sup> notes that, with the exception of imperfections relevant to the Bulgarian law on central bank independence<sup>39</sup> and the prohibition of monetary financing<sup>40</sup>, which are only partially addressed, all other issues of incompatibility highlighted in its earlier 2020 report remain unresolved. The ECB Convergence Report of 2022 is consistent overall with the findings of the Commission<sup>41</sup>.

Notable areas of incompatibility in greater detail:

**Central bank independence:** The Commission notes that when properly elected or appointed, the BNB Governor may not be dismissed under conditions other than those mentioned in Article 14.2 of the ESCB/ECB Statute. The 2022 Commission report welcomes the amendment of Article 80(1) of the Act on Corruption and Eviction of Illegally Acquired Property and confirms its compatibility with Article 14.2 of the ESCB/ECB Statute. Article 13(2) of the BNB Law on the oath of the Governor was also amended and now explicitly provides that the Governor and the Deputy Governors and the other members of the Governing Council of the BNB must be sworn that they shall contribute to the independent performance and functions of the BNB but it needs to be revised further, because it does not refer to central bank independence as enshrined in Article 130 TFEU. Article 44 of the BNB Law is not legally compatible with Article 130 of the Treaty on the prohibition of political influence over members of the NCB, and must therefore be revised accordingly. The wording of Article 44(1), in particular, must be adapted along the lines of Article 130 of the Treaty to make it more explicit that

<sup>33</sup> ECB (2020), "Convergence Report", June, chapters 2.2.1 and 2.2.2.

<sup>34</sup> See [European Commission](#) (2021), "Euro changeover: Agreement with Croatia on practical steps for the start of euro coin production", press release, 10 September.

<sup>35</sup> Darjaven vestnik, issue 56, 13 July 1991.

<sup>36</sup> Darjaven vestnik, issue 46, 10 June 1997.

<sup>37</sup> Darjaven vestnik, issue 7, 19 January 2018.

<sup>38</sup> Commission (2022), "Convergence Report", chapter 2.1.

<sup>39</sup> According to the Commission 2020 report, the BNB Governor may not be dismissed under conditions other than those mentioned in Article 14.2 of the ESCB/ECB Statute. Article 13(2) of BNB Law on the oath of the Governor had to be revised to reflect the status, obligations and duties of the BNB Governor as a member of the ECB and to be consistent with Article 130 of the Treaty. The Commission 2020 report also found that Article 44 of the BNB Law was not legally compatible with Article 130 of the Treaty on the prohibition of political influence over members of the NCB. A further point of incompatibility related to Article 3 of the BNB Law because it did not guard the monetary policy of the BNB from government influence as per Article 130 TFEU or Article 7 of the ESCB/ECB.

<sup>40</sup> According to the Commission 2020 report, Article 45(3) of the BNB Law was incompatible with Article 123 of the Treaty because, in relation to the prohibition of the direct purchase of public sector debt, it refers to both 'primary' and 'secondary' markets. With regard to the extension of credit to credit institutions other than in the context of emergency liquidity operations, the scope of Article 45(3) is incompatible with the scope of the exemption of Article 123 (2) of the Treaty and should therefore be revised accordingly.

<sup>41</sup> ECB, (2022), "Convergence Report", chapter 7.1.

"public authorities may not seek to influence the members of national banks' decision-making bodies." A further point of incompatibility relates to Article 3 of the BNB Law. In its current form it provides an opportunity for the government to influence the monetary policy of the BNB ex ante and, therefore, is not compatible with Article 130 TFEU or Article 7 of the ESCB/ECB.

**Prohibition of monetary financing and privileged access:** The list of national entities of Article 45 (1) must be amended to also include those national public entities referred to in Article 123 (1) of the Treaty and Article 21.1 of the ESCB/ECB Statute. Article 45(3) of the BNB Law is incompatible with Article 123 of the Treaty because, in relation to the prohibition of the direct purchase of public sector debt, it refers to both 'primary' and 'secondary' markets. With regard to the extension of credit to credit institutions other than in the context of emergency liquidity operations, the scope of Article 45(3) is incompatible with the scope of the exemption of Article 123 (2) of the Treaty and should therefore be revised accordingly.

**Integration into the ESCB:** Points of incompatibility include the following:

- absence of a general reference to the BNB as an integral part of the ESCB (Article 1(1) BNB Law) and its subordination to the ECB's legal acts (Articles 16 (1) and (2) and 60 BNB Law);
- monetary policy and functions of the ECB/ESCB (Articles 2(1) and (3), 16(4) and (5), 28, 29, 30, 31, 32, 33, 35, 38, 41 and 61 BNB Law);
- foreign exchange operations (Articles 20(1), 28, 29, 30, 31, 32 BNB Law);
- issuance of banknotes and volume of coins (Articles 2(5), 16(9), 24 to 27 BNB Law);
- international cooperation (Articles 5, 16(12) and 37(4) BNB Law);
- imposition of sanctions by the ECB (Articles 61 and 62 BNB Law);
- functioning of the ECB as regards payment systems (Articles 2(4) and 40(1) BNB Law);
- collection of statistics (Articles 4(1) and 42 BNB Law);
- appointment of external auditors (Article 49(4) BNB Law); and
- compliance with financial reporting obligations (Articles 16(11), 46 and 49 BNB Law).

Like the Commission Convergence Report, the ECB Convergence 2022 Report<sup>42</sup> also notes that Bulgaria is in the process of implementing reforms, but it concludes that the national legal framework on central bank independence, the prohibition of monetary financing and the integration of the NCB into the ESCB is not fully compatible with Article 131 of the Treaty.

Notable points of incompatibility in greater detail:

**Personal independence as an aspect of central banking independence:** The national Law on Counter-corruption, which was amended in 2021<sup>43</sup>, requires further revisions so that it clearly provides that, in terms of its scope, Article 80(1) of the Law on counter-corruption does not apply to the Governor, the Deputy Governors and other members of the Governing Council of the BNB. In addition, the BNB Law is not sufficiently clear as to the possibility of judicial review regarding decisions to dismiss members of the BNB decision-making bodies, other than the BNB Governor. Even though judicial review may be available under general law, the explicit stipulation of a right to review in the BNB Law would increase legal certainty. Unlike the Commission 2022 Report, the ECB Convergence Report 2022

<sup>42</sup> ECB (2022), "Convergence Report", June, chapter 7.1.

<sup>43</sup> Darjaven vestnik issue 12, 12 February 2021.

finds Article 44 of the Law on BNB to be fully compatible with the principle of institutional independence of Article 130 of the Treaty and Article 7 of the ESCB/ECB Statute.

**Monetary financing and privileged access:** Contrary to Article 123 of the Treaty, which refers to "primary markets" only in relation to the prohibition of direct purchase of public sector debt, Article 45(3) of the BNB Law refers to both 'primary' and 'secondary' markets. With regard to the extension of credit-to-credit institutions other than in the context of emergency liquidity operations, the scope of Article 45(2) of the BNB Law is not aligned with the scope of the exemption of Article 123(2) of the Treaty. In response to the earlier ECB Convergence Report of June 2020 about the liability of the BNB for the operation of the central credit register and a bank account register and the need to be waived, Articles 56 and 56a of the Law on credit institutions have been amended and the imperfection is now fully resolved.

**Integration of the BNB into the Eurosystem:** Points of incompatibility include the following:

- monetary powers and functions of the ECB/ESCB (Article 2(1) and Article 3, Article 16, items 4 and 5, and Articles 28, 30, 31, 32, 35, 38, 41 and 61 BNB Law);
- ECB powers to enter into certain financial transactions (Article 33 BNB Law);
- collection of statistics (Article 42 BNB Law);
- foreign reserve management (Article 20(1) and Articles 28, 31 and 32 BNB Law);
- payment systems (Articles 2(4) and 40(1) BNB Law);
- issue of bank notes and coins (Article 2(5), Article 16, item 9, and Articles 24 to 27 BNB Law);
- exchange rate policy (Articles 28, 31, 32 BNB Law);
- appointment of independent auditors (Article 49(4) BNB Law) and financial reporting (Article 16, item 11, and Articles 46 and 49 BNB Law);
- international cooperation (Article 5, Article 16, item 12, and Article 37(4) BNB Law); and
- powers of the ECB to impose sanctions.

Efforts to implement the necessary legislative changes in 2021 were greatly hindered by the fact that two successive elections (in April and July) resulted in political deadlock, with parties unable to form a governing coalition. This led to a third election, with the new government being sworn in only in December. Given Bulgaria's stated intention to join the euro area in 2024 and consistent progress made in legal convergence, the necessary changes could be implemented in time to receive a positive assessment in 2023.

Similar to Croatia, Bulgaria has entered into "close cooperation" with the ECB, therefore the necessary legislative requirements on banking supervision and resolution for this step have already been implemented. The SSM Regulation and SSM Cooperation Framework Regulation comprise the legal framework for coordination between the ECB and non-euro-area EU Member States<sup>44</sup>. In relation to Bulgaria, in July 2020 the ECB announced the decision of its Governing Council to establish close

<sup>44</sup> Council Regulation (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions (SSM Regulation) [2013] OJ L287, 63; and Regulation (EU) No 468/2014 of the European Central Bank of 16 April 2014 establishing the framework for cooperation within the Single Supervisory Mechanism between the European Central Bank and national competent authorities and with national designated authorities [2014] OJ L141, 1 (SSM Framework Regulation). See also Decision ECB/2014/5 of 31 January 2014 on close cooperation with the national competent authorities of participating Member States whose currency is not the euro [2014] OJ L198, 7.

cooperation with the BNB upon fulfilment of the necessary supervisory and legislative prerequisites<sup>45</sup>, and the inclusion of the Bulgarian currency in ERM II as a transitional stage for the adoption of the euro as per the ERM II principles<sup>46</sup>.

The SSM Regulation introduces strong safeguards relating to decision making and accountability. It places special emphasis on financial stability and the effective implementation of national macro-prudential measures. As a fundamental pillar of the Banking Union, the SSM is designed to foster financial integration, improve the quality and consistency of supervision, avoid competitive distortions and provide a framework for the steady channelling-through of information. Key features of close cooperation include the 'indirect' authority of the ECB over supervised entities, the direct authority of the ECB over national competent authorities (NCAs) and national designated authorities (NDAs) (Article 107(2) SSM Framework Regulation), various mechanisms to ensure the operational effectiveness of the ECB, the participation of non-euro-area Member States in the Governing Council, and conditions for the termination of the close cooperation<sup>47</sup>.

The SSM's direct supervision of banks as an aspect of Bulgaria's participation in the Banking Union is expected to have a positive impact on the credibility of both Bulgaria as a future euro area Member State, and of the stability of the banking system more generally<sup>48</sup>. The fact that the cooperation arrangement is a precondition of joining the euro suggests that it is in the interests of Bulgaria to align its supervisory practice with the highest standards of the ECB<sup>49</sup>, and that economic incentives are already sufficiently aligned for the development of a good working relationship between the ECB and the BNB<sup>50</sup>. It is also important to note that joint supervisory teams do not just facilitate the exchange of information and coordination among NCAs and the ECB on issues of prudential regulation and supervision. As they are always headed by SSM staff, they are instrumental in strengthening the authority of the ECB. As an applicant Member State, Bulgaria is set to benefit from access to the supervisory expertise of joint supervisory teams, as that access will enhance the credibility of the BNB and the reputation of its banking system<sup>51</sup>.

### 6.3. Quality of statistics

Successive ECB Convergence Reports note that "the examination of the economic convergence process is highly dependent on the quality and integrity of the underlying statistics". This is especially important in view of previous experience – in particular the Greek example – of how manipulated data can affect euro area accession or hinder efforts to address chronic fiscal deficits and excessive public debt.

The stakeholders consulted for this report have not indicated any issues regarding the quality of statistics in Bulgaria, nor Croatia. Once again, given the activation of the general escape clause of the SGP, data on deficit and debt are unlikely to be considered in the assessment of convergence. Regarding HICP inflation, Eurostat periodically monitors statistical practices to ensure that national authorities are compliant with legal requirements, and that good practices regarding consumer price indices are followed. For both Bulgaria and Croatia, a short follow-up report was published in 2018.

<sup>45</sup> ECB (2020), "ECB establishes close cooperation with Bulgaria's central bank", press release, July, available at: <https://www.bankingsupervision.europa.eu/press/pr/date/2020/html/ssm.pr200710~ae2abe1f23.en.html>.

<sup>46</sup> ECB (2020), "Communique on Bulgaria", press release, 10 July, available at: <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200710~4aa5e3565a.en.html>.

<sup>47</sup> See Article 7(5)-(8) of SSM Regulation; Article 6 of Decision ECB/2014/5; Articles 118-119 of SSM Framework Regulation.

<sup>48</sup> See Darvas and Wolf (2013).

<sup>49</sup> See Vollmer (2016) considering the role of the ECB as de facto standard setter.

<sup>50</sup> See Nieto and Singh (2021).

<sup>51</sup> Ibid.

Eurostat determined that the statistical offices of both countries had made good progress in the implementation of measures that were recommended to improve the relevance and reliability of HICP data<sup>52</sup>.

While Croatia's ERM II post-entry commitments contained no measures related to the quality of statistics on the overall nominal convergence criteria, they included a specific provision related to the establishment of a centralised system of data collection in the field of restructuring, insolvency and discharge of debt. These changes have reportedly already been implemented.

Similarly, Bulgaria's ERM II post-entry commitments also referred to the need for gradual enhancement in the process and quality of statistical data collection to ensure efficient monitoring and collection concerning restructuring, insolvency and discharge of debt. In its convergence assessment of 2022, the ECB highlighted that the independence of other statistical authorities responsible for the compilation of European statistics also needs to be assured. In the case of Bulgaria, the independence of the compilers at the Ministries of Finance is not guaranteed by law, however the monitoring and quality assurance should be assured by the National Statistical Institute.

---

<sup>52</sup> See reports for [Bulgaria](#) and [Croatia](#).



## 7. CONCLUSIONS

The overall picture of the state of nominal convergence suggests that the process has somewhat deteriorated since 2020. For a number of variables, it is more an amplification of pre-existing trends than a change in trends associated with the pandemic.

Since the outbreak of the pandemic, some non-euro area countries have drifted away from the reference value for price stability. This trend appears even more marked since February 2022, exacerbated by the war in Ukraine and the energy crisis. With the exception of Sweden and Croatia, which have remained in line with the benchmark value, all other countries exhibit inflation rates that are several percentage points above the reference value. To some extent, rising inflation has also translated into long-term interest rates, which are currently in a clear upward trend. However, for most countries values remain below the reference value. In fact, while sovereign debt has increased everywhere, in most Member States with a derogation (the only exceptions being Croatia and Hungary) it is still below the 60% reference value, and well below the euro area average. For countries outside ERM II, almost all currencies have depreciated considerably against the euro. This was already a trend before the pandemic, but has become more marked since 2020, especially for the Polish zloty and Hungarian forint. Exceptions are the Swedish krona and Czech koruna, which experienced an appreciation during COVID-19.

By contrast, real convergence, which is not a legal requirement, has been ongoing during the last years, and non-euro area Member States – especially the new EU Member States – have made significant progress in catching up with the euro area average. It also appears that COVID-19 has not halted these patterns. It is worth mentioning that since the financial crisis, the poor performance of Southern Member States has impacted the euro area average, making it somewhat easier for non-euro area Member States to catch up.

An important general finding of this study about the process of accession is that the criteria for Croatia and Bulgaria, and for those countries which wish to join the euro area in the future, are *de facto* stricter than they were for countries that joined the monetary union earlier.

In addition to the nominal criteria and legal requirements based on the Treaty, Croatia and Bulgaria were asked to join the Banking Union in the context of "close cooperation" with the ECB, at the time of joining ERM II. Both countries joined ERM II in July 2020, and Croatian and Bulgarian significant institutions have been under the supervision of the SSM since October 2020.

At the time of joining ERM II, the two governments also committed to reforms (ERM II post-entry commitments) of high relevance for achieving a high degree of sustainable economic convergence and successful participation in the euro.

Such additional requirements are intended to address institutional weaknesses and prevent hidden risks in national banking sectors, which could be overlooked by national supervisory systems, becoming a source of risk for the entire monetary union and jeopardising the sustainability of euro area membership.

### **Croatia**

Based on data updated in April 2022, Croatia meets all convergence criteria.

The price stability criterion, which is calculated based on the distance of the country from the average of the three best performers (EU Member States with the lowest inflation), is met once two of the three Member States (Malta and Portugal based on the April data) are considered as outliers and excluded from the calculation of the reference value. Although there is no systematic methodology for the



identification of outliers, outliers have been identified in the past on the grounds that their exclusion would make it possible to achieve an "economically meaningful benchmark". In practice, the argument for considering Malta as an outlier is strong, given the exceptionally low increase in energy prices. A similar, albeit somewhat weaker, argument holds for Portugal.

The ECB and the European Commission recognise the two countries as outliers in their respective reports, making Croatia compliant with the price stability criterion. The judgement is reinforced by the fact that, although inflationary risk driven by the catching-up process are tilted to the upside, inflation in Croatia is projected to remain below the reference values in the months ahead, and overall, well in line with the euro area average.

Legal convergence has now also been achieved, and in 2020 the country joined ERM II.

While the final decision will be made the Council, Croatia seems to be well placed to adopt the euro as planned in 2023. The country's state of real convergence, although not a formal criterion for accession, and the consideration of other factors, seem to point to alignment with the euro area average and no major risks. The national recovery and resilience fund will inject a very substantial amount of money into the economy (about 12 % of GDP until 2026) and is expected to drive important economic reforms. Some of them – first and foremost those linked to anti-money laundering, which are part of the ERM II post-entry commitments – are explicitly linked to euro area accession.

The country appears also ready for the adoption of the single currency from the technical point of view, as preparation to transition to the euro has already started.

## **Bulgaria**

The accession process for Bulgaria is behind that of Croatia, as the commitment to join is for 2024.

While the political instability of 2021 did not result in a de-commitment, it has led to delays, which have affected the accession preparation process and the approval of the NRRPs. Similar to the Croatia, the plan is expected to inject a very large amount of resources (more than 9 % of GDP until 2026) for investment. The country will have to prove that it has the ability to absorb and effectively use the money.

More importantly, as at May 2022, Bulgaria does not meet the nominal convergence criteria. Recent price developments are putting Bulgaria among the "worst" performers in the EU, well above the euro area average and the benchmark value. This would be the case even if all three best performers were to be considered as outliers and hence disregarded in the calculation of the benchmark. The importance of energy-intensive industry for the economy and strong energy dependence on Russian supplies, which have been cut, are likely to lead to even higher prices. Unless conditions change substantially in the course of 2022 and 2023, it will be very difficult for Bulgaria to meet the inflation criterion. This may become the case also for the interest rate criterion.

Legal convergence has also not yet been achieved and further effort is required to overcome unresolved issues of incompatibility. By contrast, when the country joined ERM II in 2020, it also joined the Banking Union. This was a major change for Bulgaria. Real convergence towards the euro area average has progressed during the last years.

Dealing with institutional weaknesses will require further efforts. Bulgaria's participation in the Banking Union is likely to force changes in the governance and transparency of banks, as the country will have to adapt to the ECB standards. This will represent a major step forward to improve the stability of the banking system. Reforms included in the ERM II post-entry commitments are also intended to address (part of) the country's main weaknesses.

Finally, there may be domestic factors that could weigh negatively, as well on the Bulgarian government's assessment about whether this is the right time for euro area accession. As concerns about price increase driven by the introduction of the euro grow, in a general context of rising inflation this could lead to declining support for the common currency. While in the past price increases caused by rounding up were temporary, they are often experienced in the daily lives of a large share of the population, and the perception of their impact is often higher than reality.

## REFERENCES

- Agnolucci, I., 2022, *Will COVID-19 Make or Break EU State Aid Control? An Analysis of Commission Decisions Authorising Pandemic State Aid Measures*, Journal of European Competition Law & Practice, Vol. 13, No 1.
- Albrizio, S., Kataryniuk, I., Molina, L. and Schaefer, J-L., 2021, *ECB Euro Liquidity Lines*, Banco de Espana, Working Paper No 2125, SSRN, available at: <https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSeriadas/DocumentosTrabajo/21/Files/dt2125e.pdf>.
- Alcidi, C. and Corti, F., 2022, *The EU response to Covid-19: breaking old taboos?*, in Vanhercke, B. and Spasova, S. (eds), *Social Policy in the EU: state of play 2021*, Brussels: OSE and ETUI.
- Balassa, B., 1964, *The Purchasing-Power Parity Doctrine: A Reappraisal*, Journal of Political Economy, 72(6), pp. 584-596, available at: <http://www.jstor.org/stable/1829464>.
- Beblavy, M., 2010, *Is the euro really a 'teuro'? Effects of introducing the euro on prices of everyday non-tradables in Slovakia*, CEPS Working Document No 339, November, available at: <https://www.ceps.eu/wp-content/uploads/2010/11/Beblavy%20on%20Euro-Teuro.pdf>.
- Belke, A., Domnick, C. and Gros, D., 2017, *Business Cycle Synchronization in the EMU: Core vs Periphery*, Open Economies Review, 28, issue 5, pp. 863-892.
- Consolo, A., Koester, G., Nickel, C., Porqueddu, M. and Smets, F., 2021, *The need for an inflation buffer in the ECB's price stability objective – the role of nominal rigidities and inflation differentials*, ECB Occasional Paper Series N. 279.
- Corti, F. and Alcidi, C., 2021, *The time is ripe to make SURE a permanent instrument*, CEPS Working paper, available at: [https://www.ceps.eu/wp-content/uploads/2021/06/PI2021-10\\_The-time-is-ripe-to-make-SURE-a-permanent-instrument.pdf](https://www.ceps.eu/wp-content/uploads/2021/06/PI2021-10_The-time-is-ripe-to-make-SURE-a-permanent-instrument.pdf).
- Croatian National Bank, 2021, *Raste podrška uvodjenju eura – rezultat anketnog ispitivanja hrvatskih građana u veljači 2021*, available at: <https://www.hnb.hr/-/raste-podrška-uvodjenju-eura-rezultat-anketnog-ispitivanja-hrvatskih-građana-u-veljaci-2021>.
- Darvas, Zs. And Wolf, G., 2013, *Should Non-Euro Area Countries Join the Single Supervisory Mechanism?*, available at: <https://www.bruegel.org/2013/03/should-non-euro-area-countries-join-the-single-supervisory-mechanism/>.
- Darvas, Zs., Szapáry, Gy, 2008, *Euro area enlargement and euro adoption strategies*, European Commission, Economic Papers 304.
- Dabrowski, M., 2006, *EMU Enlargement: A Progress Report*, E-Papers Series CASE – Center for Social and Economic Research, available at: [https://www.case-research.eu/files/?id\\_plik=4215](https://www.case-research.eu/files/?id_plik=4215).
- De Grauwe, P., 2009, *The politics of the Maastricht convergence criteria*, VOEU, 15 April, 2009, available at: <https://voxeu.org/article/politics-maastricht-convergence-criteria>.
- De Grauwe, P. and Ji, Y., 2017, *The International Synchronisation of Business Cycles: the Role of Animal Spirits*, Open Economy Review, 28, pp. 383-412.
- ECB, 2020, *Convergence Report*, available at: <https://www.ecb.europa.eu/pub/pdf/conrep/ecb.cr202006~9fefc8d4c0.en.pdf>.

- ECB, 2022, *Convergence Report*, available at: <https://www.ecb.europa.eu/pub/pdf/conrep/ecb.cr202206~e0fe4e1874.en.pdf>.
- ECB, 2004, *Convergence Report*, June 2004, available: <https://www.ecb.europa.eu/pub/pdf/conrep/cr2004en.pdf>.
- European Commission, 2020, *Convergence Report*, Institutional Paper 129 | June 2020, available at: [https://ec.europa.eu/info/publications/convergence-report-2020\\_en](https://ec.europa.eu/info/publications/convergence-report-2020_en)
- European Commission, 2020, *Country Report Bulgaria 2020, including in-depth review*, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0501&from=EN>.
- European Commission, 2021, *In-Depth Review for Croatia*, available at: [https://ec.europa.eu/info/sites/default/files/7\\_en\\_autre\\_document\\_travail\\_service\\_part1\\_v3.pdf](https://ec.europa.eu/info/sites/default/files/7_en_autre_document_travail_service_part1_v3.pdf).
- European Commission, 2022, *Convergence Report*, Institutional Paper 179 | June 2022, available at: [https://ec.europa.eu/info/publications/convergence-report-2022\\_en](https://ec.europa.eu/info/publications/convergence-report-2022_en).
- Georgosouli, A., 2021, *The transnational governance of bank resolution and the treatment of national regulatory variation in the EU*, Cambridge Law Journal, 80(1), pp. 74-100.
- Groenewegen, J., Hardeman, S. and Stam, E., 2021, *Does COVID-19 state aid reach the right firms? COVID-19 state aid, turnover expectations, uncertainty and management practices*, Journal of Business Venturing Insights, 16.
- Gros, D. and Hefeker, C., 2002, *One Size Must Fit All. National Divergences in a Monetary Union*, German Economic Review.
- IMF, 2022, *IMF Staff Completes Staff Visit to Croatia*, available at: <https://www.imf.org/en/News/Articles/2022/03/07/pr2265-imf-staff-completes-staff-visit-to-croatia>.
- Janáčková, S. and Borek, M., 2004, *Eurozone Expansion: Certain Risks for Countries Catching Up*, Eastern European Economics, 42(2), pp. 6-44.
- Koutantou, A., 2022, *Greece to pay Gazprom end-May, help Bulgaria after Russia cuts gas supply*, Reuters, available at: <https://www.reuters.com/world/europe/greece-help-bulgaria-following-russias-gazprom-halt-gas-supply-2022-04-27/>.
- Mihaljek, D. and Klau, M., 2003, *The Balassa-Samuelson effect in central Europe: a disaggregated analysis*, BIS Working Papers No 143,
- Mihaljek, D. and Klau, M., 2008, *Exchange rate pass-through in emerging market economies: what has changed and why?*, BIS Papers chapters, in: Bank for International Settlements (ed.), Transmission mechanisms for monetary policy in emerging market economies, volume 35, pages 103-130, Bank for International Settlements.
- Martin-Domingo, L. and Martín, J-C., 2022, *The Effect of COVID-Related EU State Aid on the Level Playing Field for Airlines*, Sustainability, 2022 14(4), 2368, available at: <https://doi.org/10.3390/su14042368>.
- McWilliams, B., Sgaravatti, G., Tagliapietra, S. and Zachmann, G., 2022, *Preparing for the first winter without Russian gas*, available at: <https://www.bruegel.org/2022/02/preparing-for-the-first-winter-without-russian-gas/>.

- Moder, I., 2019, *Spillovers from the ECB's Non-standard Monetary Policy Measures on South-eastern Europe*, International Journal of Central Banking, available at: <https://www.ijcb.org/journal/ijcb19q4a4.htm>.
- Mongelli, P., 2002, *New views on the optimum currency area theory: What is EMU telling us?*, ECB Working Paper series No 138, available at: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp138.pdf>.
- Mundell, R., 1961, *A Theory of Optimum Currency Areas*, The American Economic Review, Volume 51, No 4, September, pp. 675-655.
- Nieto, M. J. and Singh, D., 2021, *Incentive Compatible Relationship between the ERM II and Close Cooperation in the Banking Union: The Cases of Bulgaria and Croatia*, available at: <https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSerias/Documentos/Ocasionales/21/Files/do2117e.pdf>.
- OECD, 2021, *Bulgaria, economic assessment*, OECD Economic Surveys, January, available at: [https://www.oecd-ilibrary.org/economics/oecd-economic-surveys-bulgaria-2021\\_1fe2940d-en](https://www.oecd-ilibrary.org/economics/oecd-economic-surveys-bulgaria-2021_1fe2940d-en).
- Orsini, K. and Ostojić, V., 2018, *Croatia's Tourism Industry: Beyond the Sun and Sea*, European Commission, ECONOMIC BRIEF 036 | MARCH 2018
- Otrachshenko, V., Popova, O. and Tavares, J., 2016, *Psychological Costs of Currency Transition: Evidence from the Euro Adoption*, European Journal of Political Economy 45:89-100.
- Panetta, F. and Schnabel, I., 2020, *The provision of euro liquidity through the ECB's swap and repo operations*, ECB blog post, available at: <https://www.ecb.europa.eu/press/blog/date/2020/html/ecb.blog200819~0d1d04504a.en.html>.
- Pervan, M. and Jurić, E., 2021, *Determinants of tourism demand in Croatia*, International Journal of Economics and Statistics, Vol. 9, pp. 102-107.
- Samuelson, P.A., 1964, *Theoretical Notes on Trade Problems*, The Review of Economics and Statistics, 46(2), pp. 145-154, available at: <https://doi.org/10.2307/1928178>.
- Schadler, S., Drummond, P., Kuijs, L., Murgasova, Z. and van Elkan, R., 2005, *Adopting the Euro in Central Europe: Challenges of the Next Step in European Integration*, IMF Occasional Paper No 234.
- Sebhatu, A., Wennberg, K., Arora-Jonsson, S., I. Lindberg, S., 2020, *Explaining the homogeneous diffusion of COVID-19 nonpharmaceutical interventions across heterogeneous countries*, Edited by Arild Underdal, University of Oslo, Oslo, Norway, and approved July 16, 2020.
- Szapáry, Gy., 2001, *Maastricht & the Choice of Exchange Rate Regime in Transition Countries During the Run up to EMU*, European Network of Economic Policy Research Institutes Working Paper No. 6.
- Vollmer, U., 2016, *The Asymmetric Implementation of the European Banking Union (EBU): Consequences for Financial Stability*, International Journal of Management and Economics, 50(1), pp. 7-26.
- Wanat, Z., 2022, *Poland and Bulgaria start life with no Russian gas*, Politico, available at: <https://www.politico.eu/article/poland-bulgaria-life-no-russia-gas/>.
- Žáček, O., 2021, *How to get in? Euro area entry criteria in books and in action*, Common Market Law Review, Volume 58, Issue 4 (2021), pp. 1141-1172.

## ANNEX: METHODOLOGICAL APPROACH

The methodological approach to the study builds on the complementarity between quantitative and qualitative methods.

The quantitative approach consisted of the preparation of up-to-date data-based evidence of the state of nominal convergence. Empirical analysis was conducted to assess real convergence, relying on different statistical concepts and measures of convergence:

*Beta convergence* is used to measure whether countries starting from initially low performance levels grow faster than better performing countries. This process is referred to as catching up. This serves to capture the progress of individual non-euro area Member States relative to the euro area average, focusing on a battery of indicators, including the traditional real convergence indicator and selected indicators from the Macroeconomic Imbalance scoreboard.

*Sigma convergence* refers to the overall reduction in disparities among countries over time, and is measured by the evolution of the standard deviation or the coefficient of variation. This serves to capture whether COVID-19 has altered previous trends and more generally dispersion within groups of countries (e.g. euro area and non-euro area, all EU).

Additional empirical investigation focused on inflation (in tradable and non-tradable sectors) and growth patterns in the euro area to test whether the Balassa-Samuelson effect, which was seen as a major risk for the premature accession of catching-up countries, had materialised. The role of additional factors was also investigated, looking at developments for a set of quantitative indicators selected from the MIP scoreboard.

Comparative qualitative methods were used to complete an overview of the policy response to COVID-19, based on a large database compiled by CEPS containing almost 1,300 fiscal measures committing about EUR 3.5 trillion<sup>53</sup> to mitigate the negative impacts of the COVID-19 crisis between February and December 2020.

The study also relied on insights from interviews with experts and policy makers closely involved in the accession process and its evaluation. Interviews complemented and validated the quantitative and qualitative analysis. They mostly focused on issues related to the impact of the COVID-19 crisis and the related policy responses on Croatia and Bulgaria, as well as the impact of recent developments driven by the war in Ukraine. They helped to single out structural challenges that could potentially hinder the sustainable achievement of convergence criteria.

The qualitative analysis included an assessment of legal convergence requirements and progress in compliance.

---

<sup>53</sup> This amount includes guarantee schemes which in the end were not activated.

---

The process of nominal convergence of non-euro area countries has somewhat deteriorated since 2020, driven by an amplification of pre-existing trends. While the COVID-19 seems to have had limited impact on key indicators, it made the convergence process more challenging. Uncertainty driven by the war in Ukraine is making the inflation criterion more difficult to meet and deteriorating economic prospects.

Based on data until April 2022, Croatia meets all legal convergence requirements and nominal criteria, for joining the euro in January 2023. The accession process for Bulgaria is behind, reflecting its commitment to join in 2024, but also great legal and economic challenges.

An important finding is that accession criteria have become de facto stricter than they were for countries that joined the EMU earlier.

This document was provided by the Policy Department for Economic, Scientific and Quality of Life Policies at the request of the Committee on Economic and Monetary Affairs (ECON).

---