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With or without you: are central European countries ready for the euro?

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Executive summary

SOUTHERN EUROPEAN EURO-AREA members suffered from unsustainable developments after they joined the euro in 1999 and up to 2008, and have had great difficulties since. Inadequate national policies were the main causes of these unsustainable developments, but euro membership played a role before 2008 by leading to low real interest rates (which fuelled credit booms) and by enabling complacency about potential vulnerabilities. Euro-area crisis management was also deficient in a number of ways.

OF THE 13 countries that joined the EU between 2004 and 2013, seven have entered the euro area. Many faced similar problems to southern Europe in the pre-crisis period when they had fixed exchange rates, but they were able to adjust inside the euro area and resume economic convergence. Slovakia, which joined the euro area at a very strong exchange rate in 2009, and Bulgaria, which has a currency board fixed to the euro, performed similarly or even better in macroeconomic terms than the Czech Republic, Hungary and Romania between 2008 and 2019, even though the exchange rates of those three countries depreciated significantly after 2008. Two floating-rate countries, Hungary and Romania, had to apply for financial assistance after 2008. Croatia had many difficult years under a tightly managed exchange rate, but was eventually able to adjust and return to economic convergence. There were thus good and bad macroeconomic performances in both flexible and fixed exchange-rate regime countries. Euro-area membership (or the use of a fixed exchange rate) has not been a factor determining economic success in central Europe.

THE LEVEL OF economic development is not significant for the euro-entry decision. Countries at lower development levels will likely face higher inflation and thereby a lower real interest rate, potentially generating booms. But globally low interest rates have already pushed the real interest rates in floating exchange rate central European countries to lower levels than those in southern European countries when they entered the euro. Moreover, the central European countries that have already entered the euro area have coped with this problem.

THE FOCUS FOR euro adopters should be the prevention of macroeconomic and financial vulnerabilities and the capacity to address such imbalances if they occur. Macroprudential policy and sustainable fiscal policy are crucial to prevention, while flexible labour and product markets help in any adjustment. Banking union membership prior to euro membership could reduce the potential for financial and macroeconomic vulnerabilities. High quality policymaking is essential, since market signals might be muted inside the euro area.

CURRENT CENTRAL EUROPEAN euro non-members can be economically successful both with and without the euro. Nevertheless, the legal commitment to join the euro must be honoured, a step that should also strengthen members' commitment to European values.



1 Introduction

The debate on euro adoption by central European EU countries has intensified since Bulgaria in 2018 and Croatia in 2019 expressed their interest in joining¹. Other non-euro area central European governments, especially those of the Czech Republic, Hungary and Poland, have different views and have not shown an interest in adopting the single currency.

The main economic arguments in favour of euro-area membership include the elimination of exchange-rate fluctuations and the associated uncertainty and transaction costs. More certainty can help business planning and boost production. Euro-area membership also makes prices more transparent and thus facilitates competition, which could lead to productivity gains. European Central Bank monetary policy and banking supervision could bring credibility gains and enhanced financial stability, supporting business planning and reducing financial uncertainties. The drive toward euro adoption should promote reforms, for instance in the financial sector, public finance management and in relation to the business climate. All these benefits can lead to higher growth and better living standards for society as a whole. A legal argument in favour of membership is that all EU countries except Denmark and the United Kingdom have committed to join². In the Baltic countries, euro membership was also pursued as a security tool to create distance from Russia.

A key fear about euro membership is that the unfavourable examples of Greece, Italy, Portugal and Spain will be repeated But a key fear about euro membership is that the unfavourable examples of southern euro-area members, Greece, Italy, Portugal and Spain, will be repeated. These countries suffered from unsustainable developments between 1999 and 2008, partly related to their euro membership, and they have had great difficulties since 2008. Dispensing with country-specific monetary policy and stand-alone exchange rates might deprive joining countries of macroeconomic policy tools, especially if the ECB's monetary policy is not optimal for the new member when, for example, business cycles diverge. Concern over the incompleteness of the euro area and uncertainty about its future development could foster a wait-and-see attitude. Also, euro membership involves a greater degree of policy integration with other euro-area members, more coordination and more joint decisions, which could be unpopular in countries where EU-sceptic political parties have strong support.

In this Policy Contribution we do not review all the complex aspects of euro-area enlargement, but analyse a particularly important issue: the build-up of macroeconomic vulnerabilities and the subsequent adjustments. Through an analysis of four southern European countries that entered the euro area in 1999-2001 (Greece, Italy, Portugal and Spain) and of the 13 central, eastern and southern EU countries (CESEU) that joined the EU in 2004-13 (of which seven have already entered the euro area), we have compared developments inside and outside the euro area. Particularly important questions are the roles that a stand-alone exchange rate and an independent monetary policy could have played in the pre-crisis build-up of vulnerabilities and post-crisis macroeconomic adjustment. Our comparative analysis offers lessons for further euro enlargement.

- 1 See https://www.consilium.europa.eu/en/press/press-releases/2018/07/12/statement-on-bulgaria-s-path-to-wards-erm-ii-participation/ and https://www.consilium.europa.eu/en/press/press-releases/2019/07/08/statement-on-croatia-s-path-towards-erm-ii-participation/.
- 2 All EU countries have a legal obligation to join the euro, with the exceptions of Denmark and the United Kingdom, which have Treaty-based opt outs. But the EU Treaties do not specify a timeline for fulfilment of this obligation and in practice countries can delay their entry as long as they wish. For example, Sweden would have been ready to join in 1999 or anytime since then. But a referendum in 2003 turned down euro membership and Swedish authorities intentionally do not seek to join the European Exchange Rate Mechanism (ERM II), meaning Sweden does not meet one of the euro entry criteria.

2 The fate of southern EU members

Figure 1 (Panel A) shows the dismal macroeconomic performance of four southern EU countries: Greece, Italy, Portugal and Spain. Greek GDP *per capita* at purchasing power parity (PPP) was 67 percent of that of the average of ten 'core' EU countries in 1995, while its price level compared to the same countries was at 68 percent. *Per-capita* income in Greece increased to 80 percent of that of the ten core EU countries by 2007 (movement to the right on the figure), and its price level increased to 78 percent, also by 2007 (upward movement on the figure). These developments in themselves might have suggested that Greece was on a convergence path towards the average of ten core EU countries. Between 2007 and 2009, Greece's relative income remained unchanged, while its relative price level increased (no horizontal movement, only upward movement on the figure). From 2009-15, relative *per-capita* income in Greece fell back dramatically from 80 percent to 58 percent, relative to the ten core countries. Greece's relative price level also declined, reflecting the deep economic contraction and the associated price-level decline. While more recently, Greece's relative *per-capita* income position has stabilised and even slightly improved, the 59 percent relative position in 2019 is still well below its 68 percent value in 1995.

Spain and Portugal followed similar, but less dramatic paths. The good news is that Spain's relative income position has already exceeded its 1995 value, while Portugal is on its way.

A) Southern EU countries B) CESEU euro members 110 100 -Cyprus -Greece -Estonia 90 **—**ltaİy 100 Latvi a -Portugal --Lithuania 80 Malta -Spain 90 Slovakia 1995 70 Pricelevel -Slovenia Pri ce level 80 60 2019 2019 50 70 2019 1995 Greece 1995 40 ۴N 1995 30 1995 Lithuania 50 50 60 100 110 30 40 70 20 50 60 GDP per capita GDP per capita C) CESEU euro non-members RΠ ---Bulgaria -Croatia 70 Czech Republic -Hungary Poland 60 Romania 50 1995 40 2019 30 1995 1995 Bulgaria 10 20 50 10 40 70 60

Figure 1: Real and nominal convergence, 1995-2019 (% of ten core EU countries)

Source: Bruegel based on the April 2019 IMF World Economic Outlook. Note: For each country, the two endpoints of the line represent 1995 and 2019, while each point along the line indicates a year in between. GDP per capita is measured at purchasing power parity. The ten core EU countries are: Austria, Belgium, Denmark, Finland, France, Germany, Luxembourg, the Netherlands, Sweden and the United Kingdom. The scales of the three panels are different.

GDP per capita

Italy's pattern is different: a continuous drop in relative its income position, from 101 percent of the average of ten core EU countries in 1995 to 79 percent in 2019. Italy's relative price level increased significantly up to 2009, after which it gradually dropped because of very low inflation³. The main reasons for this dismal economic performance over the past two decades are well understood. While there were important country-specific factors for each of the four countries, there were a number of common themes.

In anticipation of euro membership, the interest rates in southern countries gradually fell to the level of the low German interest rate from their previously higher levels (Figure 2). At the same time, these countries had higher price and wage inflation, partly reflecting the convergence of their lower price levels with the euro-area average. But lower interest rates, coupled with somewhat higher wage and price increases, lowered the real value of the interest rate, which in turn fuelled consumption and credit booms, raised wage growth beyond productivity growth and generated large external imbalances such as large current-account deficits (Figure 3). These external deficits were primarily financed by borrowing from abroad and therefore external indebtedness also increased to very high levels in these countries. Spain in particular saw credit and construction bubbles (Ahearne *et al*, 2008). Weak productivity growth throughout the first decade of the euro, and even before, was a further problem, especially in Italy and Portugal⁴.

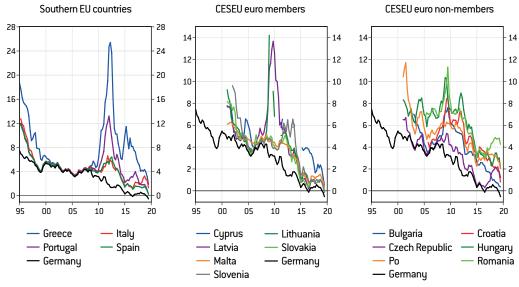


Figure 2: 10-year government bond yields, 1995Q1 -2019Q3

Source: European Central Bank and IMF International Financial Statistics.

These countries also had structurally weak public finance positions, despite the low real interest rates before the global financial crisis. Greece and Italy had rather high public debt levels even before 2008 (around 100 percent of GDP). Spain had a seemingly good fiscal position with public debt below 40 percent of GDP and, in some years before 2008, budget surpluses. But too much revenue came from the construction industry and other booming sectors, while major vulnerabilities were built up in the banking sector.

- 3 Some increase in Italy's relative price level from 1995 was expected because Italy's nominal exchange rate weak-ened significantly after the 1992 Exchange Rate Mechanism (ERM) crisis, with the related depreciation by definition lowering Italy's relative price level. See Figure 3, which shows that the Italian lira appreciated by 8 percent in nominal terms against the European Currency Unit (ECU) from the first quarter of 1995 to mid-1996: the large upward movement of the Italian price level relative to the average of the ten core EU countries from 1995 to 1996 (Figure 1) reflects this currency appreciation.
- 4 See Calligaris et al (2016) and Sapir (2018) for Italy, and Darvas and Szapáry (2008) for Portugal.

Southern EU countries CESEU euro members CESEU euro non-members 15 15 10 10 10 10 10 10 5. 5 5 5 0 0 0--5 -10 - 10 -10 - 10 - 10 - 10 - 15 - 15 -15 15 - 15 - 15 -20 20 -20 20 -20 20 15 10 20 Bulgaria Croatia Cyprus Estonia Greece Italy Hungary - Czech Republic Portugal Latvia Lithuania Spain Poland Romania Malta Slovakia Slovenia - Germanu

Figure 3: Current-account balances (% GDP), 1995-2019

Source: IMF World Economic Outlook database, April 2019.

Ultimately, pre-2008 southern European developments turned out to be unsustainable. When the crisis hit, private capital inflows stopped. This necessitated harsh current-account adjustments, even if ECB bank financing helped to cushion the speed of adjustment. Strained fiscal positions necessitated procyclical fiscal tightening instead of fiscal policy being an instrument to mitigate the economic shock. Mounting non-performing loans and large holdings of domestic government bonds (which faced large market price declines) compromised bank balance sheets and reduced the ability of banks to support economic recovery. Bank losses were partly absorbed by public-sector bailouts, limiting fiscal space even further. Pre-crisis wage growth in excess of productivity necessitated painful wage cuts and led to increased unemployment and emigration during the crisis years. Speculation on possible exits from the euro created uncertainty, reducing investment further. The inadequate crisis-management framework in the euro area worsened the problems⁵. Eventually, southern European countries came out of the deep economic contraction of the early 2010s, but the recession lasted too long and inflicted major social pain.

Overall, the euro played a role in the fate of its southern members, in particular by leading to lower real interest rates which fuelled booms and capital inflows, causing complacency about potential vulnerabilities. In addition, euro-level crisis management was deficient in a number of ways. But the ultimate responsibility for improper adjustment and policies during the first decade of the euro, which put southern euro members in a highly vulnerable position by 2008, lies with national politicians.

3 Lessons from southern euro members

There are important lessons to learn from the experience of the southern euro members (Greece, Italy, Portugal and Spain) for prospective central and eastern European adopters of the single currency.

An obvious lesson is that meeting the Maastricht criteria (low inflation, low interest rate,

⁵ See Darvas (2012) for a more detailed discussion of the roots of the euro crisis, and in particular the problems faced by southern euro members and deficiencies in crisis management.

public debt below 60 percent of GDP⁶ and budget deficit below 3 percent of GDP) at the time of euro entry is clearly inadequate for assessing a country's ability to develop successfully in the euro area. Macroeconomic vulnerabilities matter as much, and perhaps even more, in the euro area than outside. Lack of a stand-alone exchange rate necessitates domestic wage and price adjustments whenever the real exchange rate is overvalued. This proved to be a slow and painful process in southern Europe.

It is therefore crucial to prevent the build-up of macro vulnerabilities, such as large private and public indebtedness and bank balance-sheet fragility. Policymakers should develop tools to address such imbalances if they occur after euro adoption. Macroprudential policy and sustainable fiscal policy should have key roles in prevention, while flexible labour and product markets should help the adjustment if such imbalances occur. Banking union membership prior to euro-area entry could increase the resilience of banking systems and reduce financial vulnerabilities. High quality policymaking is essential, since market signals might be muted inside the euro area, as was the case before 2008 when southern euro member accumulated large imbalances.

Another important point is the maintenance of healthy fiscal positions, so that fiscal policy dampens booms when they occur and can facilitate economic stabilisation in an economic downturn. Wolff (2015) also concluded that an important reason why Bulgaria fared much better than Greece during the global and European financial crisis was the stark contrast between pre-crisis Bulgarian fiscal prudence and Greek fiscal irresponsibility. When assessing the fiscal situation, it is of great importance to analyse the possible underlying weaknesses of fiscal positions, such as an excessive reliance on certain revenue streams (such as those from construction in Spain and Ireland before 2008), the existence of economic vulnerabilities, which might undermine fiscal revenues, and the sustainability of public expenditures, including pension and health care systems, in light of demographic change.

However, these lessons are equally important for countries whether they are inside or outside the euro area. As we will see, several non-euro central European countries were subject to a major build-up of macro-vulnerabilities before 2008, including some countries that adopted flexible exchange rate regimes.

It should also be noted that the euro's architecture has been significantly improved since 2008, which might help to prevent a repetition of the pre-2008 problems of southern euro members. The most important development has been the establishment of the banking union, which, along with significantly tightened banking regulation, should reduce the likelihood of the build-up of financial-sector vulnerabilities and help to address them if they occur⁷. The development of the EU's macroeconomic imbalance procedure (MIP) can foster the analysis of, and discussions about, emerging vulnerabilities. Even if rates of implementation of MIP recommendations are low (Efstathiou and Wolff, 2019), the discussions and the accompanying analyses can raise awareness about potential macroeconomic vulnerabilities and might prompt policy action in serious cases.

Policymakers should develop tools to address major private and public indebtedness and bank balance-sheet fragility if they occur after euro adoption

4 Eastward expansion of the euro area

Among the 13 countries that joined the EU between 2004 and 2013, seven have entered the euro area, while the other six are obliged to join. These countries are converging economies potentially subject to boom/bust developments, similarly to what happened in southern EU countries before 2008.

- 6 Gross public debt must be either below 60 percent of GDP, or if higher, approach this reference value at a satisfactory pace, according to the EU Treaty. There was no exact definition of "satisfactory pace" before the so-called Six-Pack legislation in 2011, which required that the gap between the actual debt level and the 60 percent benchmark be reduced by 1/20th per year on average over three years.
- 7 See Véron (2018), for an overview of the EU's financial services policies since 2007 and recommendations on how to improve them further.

4.1 Exchange-rate regimes

Of the seven CESEU euro members, six had rather rigid exchange rate regimes prior to adoption (Table 1). These six countries used different currencies to fix the exchange rate before entering the euro, which led to large differences in nominal exchange rate developments (Figure 4)⁸. Only Slovakia joined the euro from a freely floating regime prior to its ERM II membership. Yet Slovakia's effective exchange rate regime hardly changed with ERM II membership, since the Slovakian koruna's exchange rate continued its nominal appreciation path inside ERM II, leading to a revaluation of its central parity. A further particularity of Slovakia is that the euro conversion rate was fixed in summer 2008, when central European currencies were at historically high levels against the euro (Figure 4). Lehman Brothers collapsed a few weeks after the Slovakian conversion rate was fixed, resulting in massive 20-30 percent depreciations of the Czech koruna, Hungarian forint, Polish zloty and Romanian leu. Because its euro conversion rate had already been fixed, the Slovakian koruna escaped this currency slide. It is therefore especially interesting to learn from Slovakia's euro membership experience, compared to the four floating rate countries of central and eastern Europe.

The six CESEU euro non-members have different exchange-rate regimes, ranging from a rigid currency board in Bulgaria (initially, from July 1997 against the Deutsche Mark and then against the euro from 1999), through to a rather managed exchange rate in Croatia, to freely-floating exchange rates in the Czech Republic, Hungary, Poland and Romania. These floating rates are occasionally subject to large fluctuations (Figure 4).

Table 1: Exchange-rate regimes of CESEU countries

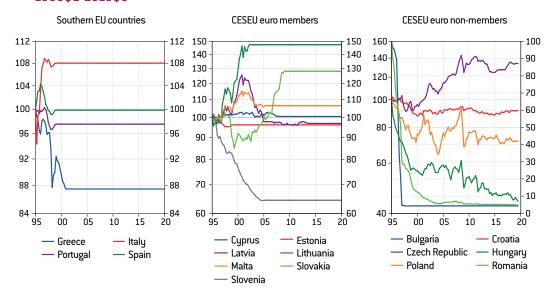
Euro members			Euro non-members	
	Entry date	Regime before		Current regime
Slovenia	2007	tightly managed	Bulgaria	currency board
Cyprus	2008	tightly managed	Croatia	tightly managed
Malta	2008	tightly managed	Czech Republic	free float
Slovakia	2009	free float	Hungary	free float
Estonia	2011	currency board	Poland	free float
Latvia	2014	narrow band	Romania	free float
Lithuania	2015	currency board		

Source: Bruegel.

A comparison of the four southern euro members (Greece, Italy, Portugal and Spain), CESEU euro members and CESEU euro non-members offers important lessons about euro membership and the possible role of a stand-alone exchange rate.

⁸ Lithuania pegged its currency to the US dollar from 1994 to 2002 – a period when the US dollar appreciated in nominal terms, and thereby the Lithuanian litas increased in value not just relative to the euro, but also to the Latvian lats, which was pegged to the Special Drawing Right from 1995 to 2005, and the Estonian kroon, which was initially pegged to the Deutsche Mark and then to the euro after 1999. Interestingly, as Figure 1 shows, Lithuania had a lower price level than Estonia in 1995 and therefore the appreciation of the US dollar against European currencies helped the relative price adjustment between Lithuania and Estonia.

Figure 4: Nominal exchange rates against the ECU and euro (1995Q1=100), 1995Q1-2019Q3



Source: Eurostat's 'Euro/ECU exchange rates - quarterly data [ert_bil_eur_q]' dataset. Note: increase indicates exchange rate appreciation against the ECU/euro. The three panels have different scales. The European Currency Unit (ECU) was the former currency unit of the European Communities, which was replaced by the euro on 1 January 1999 at a rate of 1:1. The ECU was composed of a basket of currencies of the European Community member states and served as the standard monetary unit of measurement.

4.2 Baltics vs southern EU members

Developments in Estonia, Lithuania and Latvia, which maintained tightly managed exchange rates before entering the euro, were rather similar to developments in the southern euro members in the pre-crisis period and in several aspects were even more extreme. The current account deficits (as percent of GDP) of the three Baltic countries were larger, credit growth was faster and price and wage inflation were also much more rapid than in the southern euro members. An important difference, however, related to the financing of current-account deficits: foreign direct investment (FDI) accounted for about half of the capital inflows into the Baltic countries, while in the southern EU countries, financing predominantly came in the form of loans. FDI financing carries a lower risk than loan financing, primarily because FDI involves direct risk sharing and does not have to be repaid. Loans have to be repaid and involve risk sharing only via defaults, which leads to a cumbersome legal process⁹.

The economic contraction in the three Baltic countries after 2008 was much sharper than in southern Europe, but these countries were able to return to growth much faster. The GDP *per-capita* levels of the three Baltic countries relative to core EU countries in 2019 are much higher than their 2008 levels, reflecting a successful adjustment and continued convergence towards the richer western European nations. Meanwhile, all of the four southern euro members still lag behind their pre-crisis peak values (Figure 1).

There are several possible reasons for the relative success of the Baltic countries compared to their southern counterparts. The large share of FDI among foreign liabilities, some of which was invested in banks, helped external adjustment, while foreign bank ownership largely saved the Baltic countries from costly bank bail-outs. Gross public debt levels as a share of GDP in 2007 were very low in the Baltic countries – 4 percent in Estonia, 8 percent in Latvia and 16 percent in Lithuania – which provided a fiscal buffer 10. Higher levels of microeconomic

⁹ See Darvas et al (2015) for the main theoretical aspects of capital flows and the vulnerabilities they can cause, and for a detailed comparison of capital flows and their components in European countries.

¹⁰ Fiscal policy should have played a counter-cyclical role to dampen the boom in the Baltic countries, even if it was unable to deal fully with the pre-crisis overheated economies (Darvas and Szapáry, 2008).

flexibility in the Baltic countries compared to the EU south likely helped sectoral reallocations and adjustments. And last but not least, the strong determination to join the euro area, even if that meant maintaining the exchange-rate pegs and suffering from deeper recessions (Becker *et al*, 2010), created confidence that likely helped the economic recovery. In Greece, there were intensive talks in 2011-12 about whether the country would leave the euro area and Sapir (2019) noted that the commitment to the euro was not unambiguous in Italy either. Contagion of the euro crisis to Portugal and Spain in 2011-12 also raised concerns about the integrity of the euro area. Uncertainty related to euro membership of the southern EU countries is likely to have played a negative role in economic sentiment, leading to capital flight, which lengthened the recession.

4.3 Slovakia vs the four CESEU floaters

The experiences of euro member Slovakia compared to those of the floating exchange rate countries the Czech Republic, Hungary, Poland and Romania, offer further interesting insights. If the exchange rates matters much, the four central European euro non-members should have performed better economically than Slovakia after the collapse of Lehman Brothers in September 2008, when the four floating currencies depreciated massively. But this did not happen.

In fact, Slovakia was one of the best performers in terms of economic growth after 2008, as its economy grew by 29.7 percent from 2008 to 2019 (the 2019 values are based on the May 2019 European Commission forecast). It outperformed the Czech Republic (19.4 percent growth in the same period), Hungary (20.1 percent) and Romania (26.7 percent), though Poland grew even faster at 46.3 percent¹¹. The employment rate rose very rapidly in Slovakia after 2013, similarly to other central European countries, and the rate in 2019 is higher than in Poland and Romania, but lower than in the Czech Republic and Hungary (Figure 5). Average annual inflation from 2008-19 was 1.5 percent in Slovakia, the same as in the Czech Republic and just slightly above the average inflation rate in the euro area (1.3 percent). Poland (1.7 percent), Hungary (1.9 percent) and Romania (2.5 percent) had somewhat higher inflation in the same period. Slovakia recorded one of the best export performances in the region (Figure 6). Apparently, the lack of a stand-alone exchange rate and monetary policy in Slovakia did not hinder positive economic developments, with Slovakia outperforming on a number of measures floating rate CESEU countries.

On the other hand, Hungary had a flexible exchange-rate regime both before and after 2008, yet there were unsustainable macroeconomic developments before 2008 and the growth record after 2008 was relatively weak compared to other countries in the region. Particular pre-crisis problems in Hungary were related to large budget deficits (averaging at -7.4 percent of GDP from 2002 to 2007, which was a period of economic growth and thereby policy decisions, and not a recession, led to large budget deficits) and a very rapid increase in lending to households and non-financial corporations, of which about two-thirds was granted in foreign currencies. The large budget deficits created a vulnerable fiscal situation and necessitated fiscal adjustment even before the global financial crisis, while foreign currency loans led to major losses for borrowers and lenders alike when the exchange rate of the forint depreciated significantly. Problems related to foreign currency loans also weakened the banking system's ability to support an economic recovery during the global and euro-area financial crises. Hungary's problems were so severe that it was among the first countries to apply for financial assistance from the International Monetary Fund and European partners in 2008, shortly after the collapse of Lehman Brothers. Romania, another floating exchange rate country, also had to apply for financial assistance in early 2009, highlighting that a floating exchange rate is not a panacea for economic problems.

Notwithstanding the economic success of Slovakia inside the euro area, we do not know the counterfactual, that is, how Slovakia would have developed if it had not joined the euro

The lack of a standalone exchange rate and monetary policy in Slovakia did not hinder positive economic developments

11 Poland was the only EU country that did not face a recession in 2009, nor in later years.

area in 2009. Nevertheless, our finding that Slovakia achieved faster economic growth than three of the four CESEU floaters, and its export and labour market performances were especially positive, suggests that euro membership and the absence of major currency depreciation did not hinder outstanding economic performance.

The industrial structure of Slovakia, with the country deeply integrated into western European manufacturing networks, does not make Slovakia exceptional compared to the CESEU floaters. The share of manufacturing in Slovakia's total output was 22.5 percent in 2017, but in the Czech Republic and Hungary it was even higher (26.8 percent and 23.2 percent respectively). In Romania (22.2 percent) it was almost the same as in Slovakia, and in Poland (20.0 percent) it was just slightly lower. These manufacturing shares are much larger than the euroarea average (17.3 percent), and especially larger than in southern euro-area members, where it ranges from 10.8 percent in Greece to 16.6 percent in Italy. To the extent that manufacturing and supply-chain integration with western Europe helped Slovakia's economic development inside the euro area, it will help similarly, or even more, the floating rate CESEU countries once they join the euro area.

4.4 Bulgaria vs the four CESEU floaters and southern EU members

The example of Bulgaria is also telling, because Bulgaria has had the most rigid currency fixing regime, a currency board, in place since 1997. Bulgaria accumulated the largest current account deficit as a share of GDP of all European countries, 24 percent in 2007 (Figure 3). This was mostly financed by FDI and not by loans as in southern Europe. As the global crisis developed, this record high current account deficit was almost eliminated in two years, and in more recent years it has turned to a surplus. Such a major macroeconomic adjustment had a painful price in terms of the fall in the employment rate, which dropped from 71 percent in 2008 to 63 percent in 2011¹². Since then however the employment rate has increased rapidly and, reaching 74 percent in the first quarter of 2019, overtaking Poland and Romania (Figure 5).

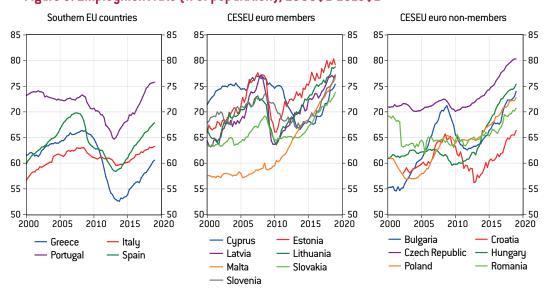


Figure 5: Employment rate (% of population), 2000Q1-2019Q1

Source: Eurostat's 'Employment and activity by sex and age - quarterly data [Ifsi_emp_q]' dataset. Note: 20-64 years old age cohort is considered.

Even though Bulgaria went through an enormous macro adjustment after 2008 under a fixed exchange-rate system, it recorded faster economic growth between 2008 and 2019 (21.1

¹² The decline in the Bulgarian employment rate after 2008, about 8 percentage points, was similar to the decline in Portugal. In Italy it was smaller (3 points) but in Spain and Greece it was higher (11 points and 13 points respectively).

percent in total) than the floating-rate Czech Republic (19.4 percent) and Hungary (20.1 percent). While in principle Bulgarian exports should have suffered from the absence of a large currency depreciation, Bulgaria's export market share has developed since 2008 in almost the same way as that of floating-rate Poland, and performance has been better than those of the Czech Republic and Hungary (Figure 6). These developments show that a nominal exchange-rate depreciation might not be necessary for an export boost.

Bulgaria also performed much better than southern EU countries in terms of growth and export performance, while in terms of employment its record is similar to Portugal and better than those of Spain, Italy and Greece.

Overall, Bulgaria did remarkably well in terms of the adjustment to a large external shock under a fixed exchange rate, suggesting that the country could perform well inside the euro area.

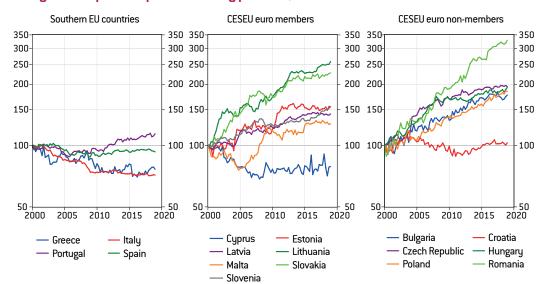


Figure 6: Exports/imports of trading partners, 2000Q1-2019Q1

Source: Bruegel using data from Eurostat ('GDP and main components (output, expenditure and income) [namq_10_gdp]' dataset), OECD ('Quarterly National Accounts' dataset) and Statistics Committee of Ukraine. Note: goods and services are considered. The 49 trading partners are composed of 28 EU countries, ten other advanced countries (Australia, Canada, Iceland, Israel, Japan, Korea, Norway, New Zealand, Switzerland and United States), and eleven emerging countries (Brazil, Chile, Costa Rica, India, Indonesia, Mexico, North Macedonia, Russia, Serbia, Turkey and Ukraine). For each country, country-specific trade weights were used to calculate the weighted average imports of trading partners.

4.5 The influence of the level of economic development and the real interest rate

Countries at a low level of development tend to have low price levels relative to developed European countries (Figure 1). When such a country adopts a fixed exchange rate or joins the euro area, it is bound to have higher inflation than the euro-area average if economic convergence continues, because the convergence-driven price level increase cannot be absorbed by a nominally stronger exchange rate, only by domestic inflation. Such convergence-driven relative price level increases are evident from Figure 1. But higher inflation reduces the real interest rate, which might make unsustainable credit booms more likely. In the pre-crisis period, some analysts used this argument to highlight the importance of reaching a certain level of real convergence before joining the euro (for example, Darvas and Szapáry, 2008). However, more recent developments overturn this argument for two important reasons.

First, the world is seeing a secular decline in nominal and real interest rates; see for example Del Negro $et\ al\ (2019)$. Figure 2 shows that the 10-year yield on German government bonds, perhaps the safest financial asset in Europe, declined from over 7 percent in 1995 to below zero: the yield was -0.6 percent in September 2019. Long-term inflationary expecta-

tions have declined much less, perhaps by around 1-2 percentage points from 1995 to 2019¹³, implying a massive decline in the German long-term real interest rate. Such a decline in the safe real interest rate also drives down interest rates in CESEU countries, irrespective whether they are members of the euro area. Among the floating-rate CESEU countries, the nominal 10-year government bond yield is greatest at 4.1 percent in September 2019 in Romania. But even this yield is below the yield faced by southern EU countries when they joined the euro area in 1999-2001 and Romania now is expected to have a higher inflation than that faced by southern euro members in the early 2000s. The 10-year government bond yield is even lower (September 2019) in Hungary and Poland at 2 percent and in the Czech Republic at 1.3 percent. Therefore, real interest rates in the floating-rate CESEU countries are much lower now than the real interest rates in southern euro-area members at the time of euro adoption. Floating-rate CESEU countries seem able to manage the situation.

Second, the post-2008 experiences of Bulgaria, the Baltic countries and Slovakia show overall favourable macroeconomic developments either under the euro or a fixed exchange rate. It therefore seems that with appropriate attention and adequate policy instruments, such as macroprudential policy, the consequences of a low real interest rate resulting from higher than euro-area average inflation can be managed. Darvas and Pichler (2018), for example, described the macroprudential tools adopted by the National Bank of Slovakia to tame rapid credit and house-price growth.

Therefore, when proper attention is paid to the management of possibly destabilising toolow real interest rates, and adequate policy tools are applied, the level of economic development is not a relevant factor in the euro-entry decision.

4.6 Croatia, a weak performer

Not all central European countries with fixed or a tightly managed exchange rates have been similarly successful. For example, Croatia suffered from a GDP decline in each year between 2009 and 2014 and growth since then has raised output only slightly, by 1.6 percent, compared to its 2008 level. Croatia's export performance has been very poor in comparison to other central European countries, resulting in its market share remaining more or less at the same level in 2019 as in 2000, in contrast to most other central European countries, which have been able to double their shares (Figure 6). While there were improvements in employment since 2013, the 2019Q1 employment rate of 66 percent is far the lowest in the region (Figure 3).

Croatia's weak macroeconomic performance has mostly resulted from structural weaknesses (IMF, 2014) and weak domestic demand, partly as a consequence of large private debts. Structural weaknesses were reflected by Croatia scoring worst of the CESEU countries in the World Bank's *Ease of Doing Business* indicator. Croatia also scores particularly weakly in the World Economic Forum's labour and goods markets efficiency indicators. Fiscal policy has run out of space to support demand, while a high level of foreign currency debt (the share of foreign currency loans in loans to the private sector is over two-thirds) has led the central bank to keep the exchange rate of the Croatian kuna relatively stable, since a depreciation would have adverse balance-sheet consequences, with negative feedback to the economy. Question marks about the efficiency of an independent monetary policy in a small open economy under the free movement of capital might have also made the Croatian central bank cautious about actively using monetary policy and allowing the currency to fluctuate.

Nevertheless after a long adjustment period, Croatia was able overcome its problems and revive growth. It completed its 'counter-clockwise loop' as shown in Figure 1, that is, after its GDP *per capita* relative to core EU countries declined initially with a relatively high price

¹³ Lack of precise data on inflationary expectations in 1995 hinder the quantification of the decline in expected inflation. Average inflation in Germany in the first half of the 1990s was 3.5 percent, while in the second half of the 1990s it was lower at 1.1 percent. Presumably, expectations did not differ much from actual inflation developments. Market-based inflationary expectations in September 2019 indicated an average 1.3 percent inflation rate in Germany over the next ten years.

level, its price level also declined, followed by resumed convergence and some accompanying relative price increases. When growth restarted, the current-account balance remained in surplus, and the employment rate also increased from 56 percent of the population in 2013 to 66 percent in 2019Q1, though it is still the lowest in the region. This macro adjustment is inferior to the adjustment in Bulgaria and the Baltic countries, yet ultimately Croatia has been able to complete its adjustment under a tightly-managed exchange rate and without the help of either monetary or fiscal policies, or a financial assistance programme. This adjustment capacity is encouraging for Croatia's potential to perform well in the euro area.

5 Concluding remarks

The excellent growth, export and employment outcomes in Slovakia and Bulgaria, and the renewed convergence of the three Baltic countries after their deep crises, underline that euro membership, or the use of a fixed exchange rate, have not been crucial in determining economic success in central Europe. There were both good and bad macroeconomic performances in both the flexible and the fixed exchange-rate regimes of central European countries after the global crisis, and they all avoided the fates of Greece, Italy, Portugal and Spain, despite the very low real interest rates they face. Robust convergence has resumed in all central, eastern and southern EU countries, even those that faced more difficult adjustments. The massive current-account adjustments from large deficits to surpluses proved to be persistent. Such current-account surpluses, or close to balanced positions, help to reduce external liabilities, at least as a share of GDP. But from a conceptual perspective, converging economies would be better off with current-account deficits, which can boost domestic investment.

The key lessons – also from the macroeconomic problems of the southern euro members – are the importance of prevention of macro imbalances, the need to foster stability-oriented fiscal policy and retaining microeconomic flexibility. These key lessons are equally important for euro members and non-members. Banking union membership prior to euro adoption could help in the prevention of financial and macroeconomic imbalances and is therefore advisable. An unambiguous commitment to maintain a fixed exchange rate once it is in place, and to euro membership after euro entry, is absolutely essential.

An important implication of our findings is that the central European euro non-members could be successful both with and without the euro, which raises the question of the appropriate timing of entry. Our analysis shows that the level of economic development is not a relevant factor in the entry decision.

Bulgaria and Croatia have already officially expressed their interest in joining. Our analysis shows that from a macroeconomic adjustment perspective, both countries are ready to join. An important open question, however, is whether the temptation to implement less-disciplined policies will be stronger after entering the euro area, as it was for the southern EU members after 1999. Market signals might be muted once inside the euro area, requiring high-quality policymaking. Yet the lessons from the disappointing developments in southern Europe have been learned and the seven CESEU countries that have joined the euro area have not shown signs of such policy slippage.

For the four CESEU floater countries, the Czech Republic, Hungary, Poland and Romania, euro entry is more of a political than an economic decision. In economic terms, central European 'outs' could perform well both inside and outside the euro area. Most likely, the difference in the growth impact of joining the euro or staying outside is minor. But the EU is not only about economic benefits (Darvas, 2018). The EU represents shared commitment to European values, such as the respect for human dignity, human rights, freedom, democracy, equality and the rule of law. These values, as well as striving for peace and the well-being of citizens, define the EU. The euro is the EU's currency. The legal commitment to join the euro must be honoured, a step that should also strengthen members' commitment to European values.

Our findings show central European euro non-members could be successful with or without the euro, raising the question of the appropriate timing of entry

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