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The Euro as a Dysfunctional Marriage

Jan Libich[1]

La Trobe University and VSB-TU Ostrava

Abstract

The paper examines the functioning of the euro area with emphasis on the desirability of its further enlargement. This is based on theoretic research regarding optimal currency areas, empirical studies on the euro area in the past 20+ years, as well as historical experiences of two monetary unions in Europe in the late 19th and early 20th century. The discussion highlights a number of problems in the euro area's design and documents the damage caused – especially in the periphery (Southern) countries. Consequently, the analysis implies that it would be too risky for the seven countries on the accession list (Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania and Sweden) to adopt the euro at this point. It is also argued that in most of these countries voters do not seem to be sufficiently informed to adequately assess all the pros and cons of euro accession. The paper concludes by outlining structural reforms that could in principle alleviate the euro area's key problems, and potentially make its enlargement desirable in the future.

Keywords: euro, monetary union, optimal currency area, business cycle synchronization, monetary policy.

JEL classification: F33, F45, E42

[1] I would like to thank Stanislav Kappel for valuable research assistance, and gratefully acknowledge financial support from the Czech Science Foundation GACR (project 19-19485S). Address: La Trobe University, School of Economics, Melbourne, 3086, Australia. Phone: (+61) 3 94792754. Email: j.libich@latrobe.edu.au.

1. Introduction

Many people are unsure about getting married. The same is true for the seven countries that contemplate a monetary marriage with the euro area through the common currency euro. The reason for hesitating is similar in both cases: “I am fond of my partner, but what if we are a poor match?”. Is this fear of incompatibility between the euro area and its potential accessors (Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania and Sweden) justified?

This article explains why the answer is affirmative, and why further euro area enlargement seems undesirable at this stage. In reaching the conclusion I review the literature assessing economic developments in the euro area over the past few decades, as well as the studies evaluating two (often-forgotten but highly informative) episodes of monetary unions from more than a century ago.

The discussion in fact suggests that the case against euro adoption is stronger than two decades ago when the single currency was introduced (in 1999 in electronic form, in 2002 as physical money). The heterogeneous impact of the current COVID-19 pandemic across Europe may further accentuate the economic arguments in the paper. An additional political reason to consider euro adoption very carefully is, as Greece learnt the hard way, that a friendly ‘divorce’ does not seem to be achievable in the European monetary union.

Nevertheless, the conclusion that the seven countries on the enlargement list should stay away from the euro does not necessarily apply permanently. I discuss below some conceptual reforms proposed in the literature that could, if implemented successfully, make euro area accession desirable for these countries in the future. Importantly, these reforms could solve the main pressing economic problems in the South of Europe.

2. The Status Quo of Monetary Ties in Europe

To provide the necessary background, Figure 1 offers a map of Europe indicating the relationship of the countries to the euro. The blue region denotes the nineteen euro-area countries, i.e. members of the European Union (EU) that have adopted the common currency. The accession countries are either in lime green or red. The two countries in the lime green category (Bulgaria and Croatia) have recently joined the

European Exchange Rate Mechanism (ERM) II, the membership of which is a requirement prior to euro adoption. The five countries in the red category (Czech Republic, Hungary, Poland, Romania and Sweden) have not applied yet.

Figure 1: A map of the euro area and the status of the surrounding countries and territories. The colours denote the following: EU members using the euro (euro area), ERM II member with an opt-out, ERM II members without an opt-out, other EU members, users of the euro as a result of a treaty with the EU, unilateral adopters of the euro. Source: Wikimedia (2020).

Denmark is also a part of the ERM II, but it had negotiated an exception so it is not mandated to join the euro. This is in contrast to all the 'new' EU members that have joined post-2004. Based on the relevant EU treaties, they are in principle required to adopt the common currency once they meet the Maastricht convergence criteria. Nevertheless, no enforcement mechanism exists that would make them do so, which means that the public and politicians in those countries see euro adoption largely as a matter of their choice rather than a firm commitment.

In terms of the countries already using the euro the discussion below makes the distinction between the core and the periphery; in line with the influential work of

Bayoumi and Eichengreen (1993). The authors distinguished these two groups based on a structural framework of Blanchard and Quah (1989), identifying demand and supply shocks through long-run restrictions. Their core countries featuring a higher correlation of supply-side shocks were Belgium, France, Germany and the Netherlands (as well as Denmark, which opted out of the euro). Their periphery countries with uncorrelated shocks were Greece, Ireland, Italy, Portugal, and Spain (as well as the UK, which is no longer part of the EU).

Subsequent research has sometimes included a slightly different set of countries in the two categories, or put forward a third category ('coreiphery').[2] Nevertheless, I will generally follow the original Bayoumi and Eichengreen's (1993) classification due to its wide-spread usage. The discussion will not include the more recent euro adopters, namely Slovenia (2007), Cyprus (2008), Malta (2008), Slovakia (2009), Estonia (2011), Latvia (2014) and Lithuania (2015), due to the short time frame.

3. The Honeymoon Period

Let us consider what tends to happen after a country joins a monetary matrimony such as the euro. Upon overcoming the short-term logistic challenges (analogous to the costs of organizing the wedding ceremony and moving houses), the first few years with the common currency may seem like a honeymoon. Buying tickets to the Eiffel Tower, seeing Messi play for Barcelona F.C. at Camp Nou, enjoying the ski slopes in the Austrian Alps or paying to get to the Colosseum, all hassle free. No international bank fees or costly ATM withdrawals. No more fears that one's currency weakens relative to the euro just before travelling to the Oktoberfest in Munich, leaving one with less money in real (i.e. 'beer') terms.

The potential benefits of the common currency are enjoyed not only by households through easier tourism, but also by businesses. The elimination of exchange rate swings means reductions in the costs and risks associated with international money flows as well as trade. For the economy as a whole, increased openness tends to

[2] For example, McCallum and Moretti (2012) postulated the core as consisting of Austria, Germany, Finland, Luxembourg and the Netherlands; the periphery being Greece, Ireland, Portugal and Spain; and the 'coreiphery' featuring France, Italy and Belgium.

manifest in greater competition and productivity, leading (in principle) to a wider choice for consumers, lower prices and higher wages.

Most of these improved outcomes did seem to be occurring in the euro area's periphery countries before 2008. Foreign investment flew in at unprecedented rates, producing sizeable current account deficits as apparent in Figure 2 (see also Brazys and Regan, 2016).

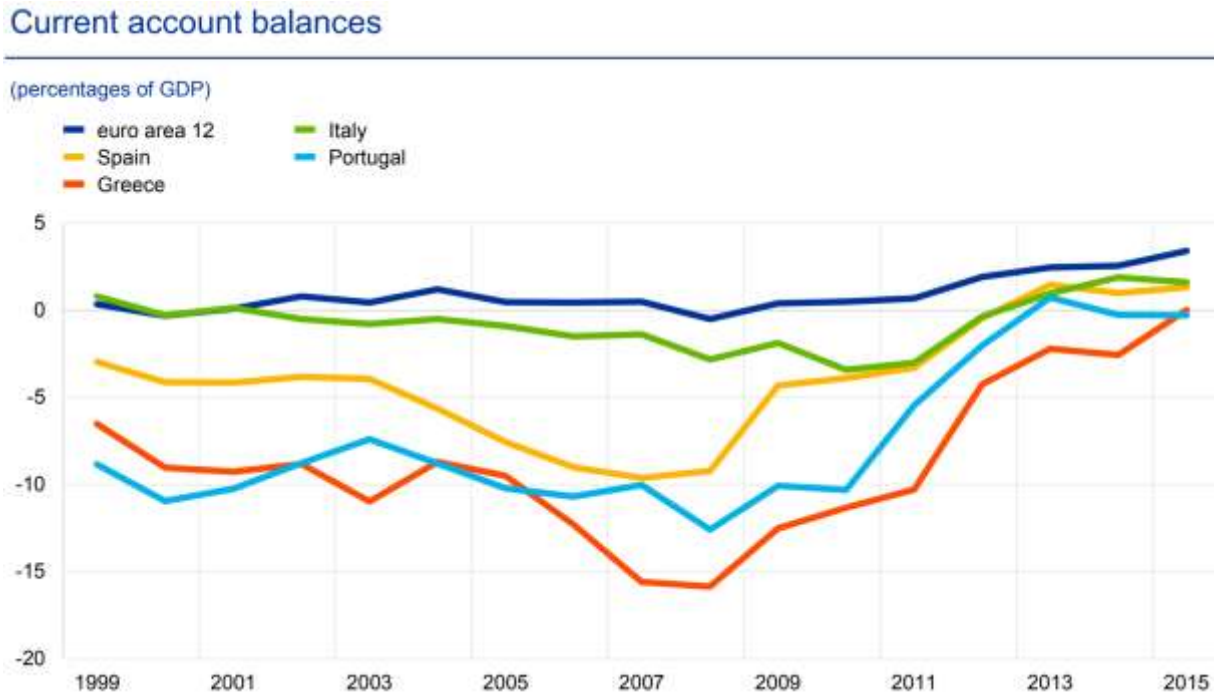


Figure 2: Current account surpluses (+) and deficits (-) in the euro area as a whole (dark blue line) and in the periphery countries (the remaining colours). Source: Diaz del Hoyo et al. (2017).

Large amounts of incoming capital further fuelled the substantial growth in property prices. To document its extent, during the 1995-2007 period nominal house prices (based on Bank for International Settlement data) increased by 337% in Ireland and 226% in Spain (whereas in Germany they actually decreased by 7.3% over the same period). The effects in the real economy were smaller than in the financial variables, especially in the first three 'transition' years, but even in this domain the numbers seemed positive for the periphery countries. For example, their cumulative growth of real GDP during 2000-2004 was much higher than in the core; around 20% in Greece and 10% in Spain (as opposed to 3% in Germany and France).

As a consequence, optimism in the financial markets of the periphery countries gradually set in (despite some unfavourable productivity and capital misallocation trends, see Gopinath et al., 2017). In the period between the trough in early 2003 and the peak around mid-2007, Greek stocks almost quadrupled in value, Spanish stocks tripled, Portuguese and Irish stocks increased 2.6 times and Italian stocks doubled in value. The risk premium in the periphery countries decreased to historically low levels, e.g. the sovereign bond yield spread between Greece and Germany reached only 0.2% (20 basis points) in June 2007. This was, to a large extent, due to the perceived 'risk sharing' within the euro area and the associated moral hazard. Essentially, financial markets believed that the periphery countries enjoyed implicit 'insurance' by the core countries, and acted accordingly (see e.g. the discussion in Vandenbroucke, 2017 or Feld et al., 2015).

In spite of the initial (seemingly) encouraging developments, many researchers still had their doubts about the euro. A number of such views, highlighting the potential threats, had been spelled out even prior to the single currency's formation (e.g. Feldstein, 1992, Bayoumi and Eichengreen, 1993, Friedman, 1997 and Krugman, 1998). Perhaps most influentially, Bayoumi and Eichengreen's (1993) empirical analysis implied strong warnings about the heterogeneity of the EU's core and periphery groups, and the dire consequences a common currency could have for the member economies.

This literature built on the seminal work of Mundell (1961), McKinnon (1963), Kenen (1969) and subsequent contributions to the theory of optimal currency areas. The research generally focused on the members' business cycle synchronization and more broadly on the monetary union's costs and benefits associated with international trade, cross-country investment, functioning of monetary policy and exchange rate volatility. It is beyond the scope of this paper to discuss the findings in detail. Let us just mention two important implications of this large literature that are relevant for our discussion of the euro below.

First, the disadvantages of joining a monetary union usually eventuate more slowly than the potential benefits, and are less visible. This is because the various economic imbalances and misalignments accumulate over time, and their understanding requires some knowledge of economics. Second and relatedly, initial improvements in

economic performance within a highly heterogeneous monetary union may be short-lived, and hence largely illusory.

4. Sobering up

In many marriages the feeling of love is (unfortunately) replaced by the feeling of alienation, dislike or possibly even hate. Similar developments tend to occur in a highly heterogeneous monetary union. The asynchrony in the countries' business cycles, combined with the absence of vital monetary/fiscal adjustment mechanisms, eventually has a negative impact on various segments of the members' economies. This includes financial stability, employment and long-term economic growth.[3]

The euro area has been no exception. When optimism turned into pessimism at the onset of the Global Financial Crisis (GFC) in mid-2007, economic indicators started deteriorating rapidly. Let us highlight some of the outcomes at the euro's periphery, focusing on the 2007-1013 period (for more see e.g. Perez and Matsaganis, 2018).

In terms of financial variables, the risk premia rose dramatically when the crisis hit. For example, the above-mentioned spread between Greek and German government bond rates increased 200-fold (to almost 4,000 basis points) between June 2007 and March 2012. Greek stocks lost over 90% of their value within five years (and in early 2020, before COVID-19, they were still well below their pre-crisis peak). In Ireland, the stock market lost 80% of its value within just 21 months, and property prices (adjusted for inflation) fell by half.

Government debt in Portugal and Italy climbed to 130% of GDP, and has remained at such high levels since. Even more strikingly, Irish government debt increased from below 25% to 120% of GDP within just five years after 2008.[4] Interconnectedness of debt was also a major obstacle in the euro area's recovery, because much of the periphery countries' sovereign debt was owned by banks in the core countries. Not only did this create a strong link between the likelihood of debt crises and banking crises (see Allen and Moessner, 2013), but it also put Greece and others into a

[3] Sections 5-7 below explore two monetary stabilization mechanisms, namely flexible exchange rates and autonomous monetary policy, and why exactly desynchronized business cycles are problematic. Section 10 discusses fiscal policy stabilization in a monetary union.

[4] Appendix A provides more details regarding the EU countries' indebtedness, including the 'fiscal gap' measure that better captures the long-term fiscal position.

stalemate when it came to debt reductions negotiations (see Howarth and Quaglia, 2015).

In terms of real variables, in the seven years post-2008 real GDP in Greece shrank by 45%; in Italy, Portugal and Spain it was 20-25%. Spanish unemployment more than tripled to 26 percent, reaching over 55% among young people (it was still above 30% in early 2020). In Portugal and Italy youth unemployment also increased substantially, reaching over 40%.

It is instructive to compare the post-GFC economic outcomes in the euro area's core and periphery. Figure 3 does so, separately for the 2008-2009 and the 2010-2013 periods. It demonstrates that the effect in the periphery was much more severe and longer-lasting than in the core. For example, during 2010-2013 the unemployment rate rose by 5 percentage points in the periphery countries as a whole, whereas it actually fell in the group of core countries. Real GDP figures offer a similar picture, increasing by 3% in the core and decreasing by 5% in the periphery during 2010-2013.

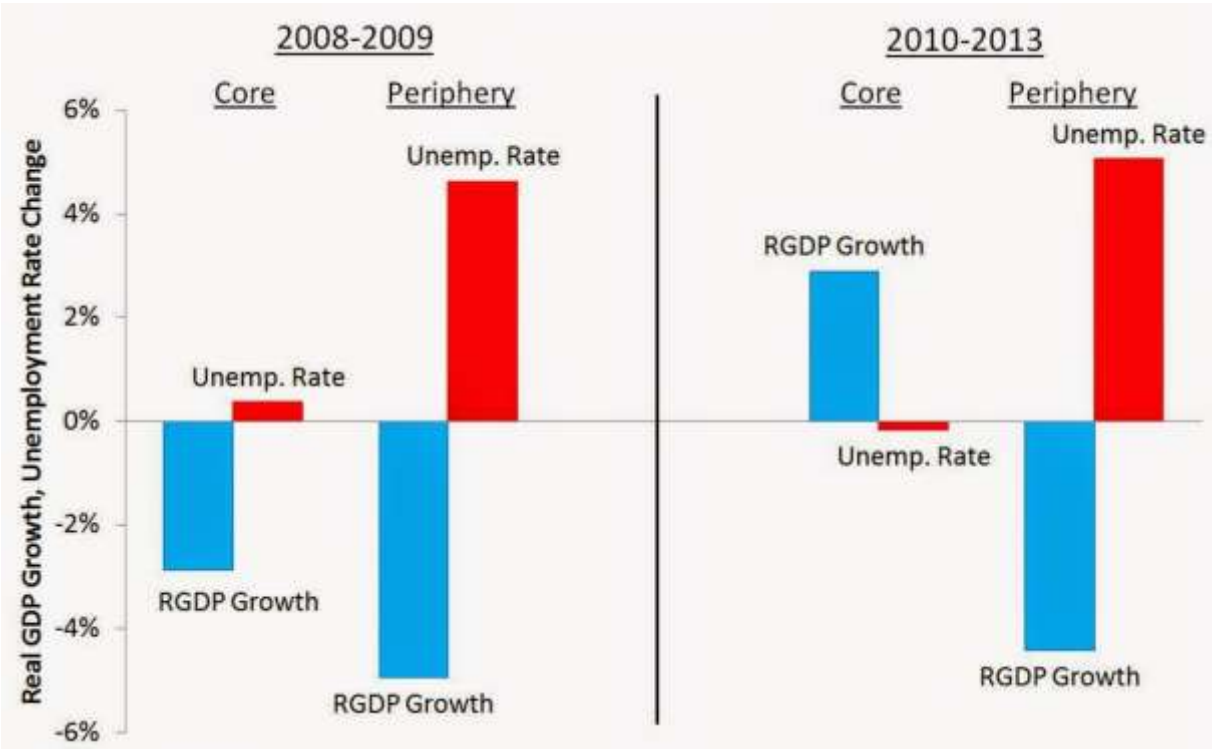


Figure 3: The changes in real GDP growth and the unemployment rate for the euro area's periphery (red) and core (blue). Source: Harrison (2015).

Many of the negative consequences in the euro's periphery countries are still felt to the present day. In combination with the dire effects of the COVID-19 pandemic, they are

likely to be felt for years to come. For example, youth unemployment tends to have a myriad of undesirable persistent impacts on people's labour market prospects as well as on their mental health (see e.g. Thern et al., 2017, Strandh et al., 2014 or Bell and Blanchflower, 2011). This can create a "scarred generation", as highlighted in an International Monetary Fund report by Morsy (2012). How (and why) did these detrimental economic and social effects of the GFC come about? The next section discusses the underlying forces at play.

5. Irreconcilable Differences in a Monetary Partnership

Out of the two adjustment mechanisms that a country has to give up upon joining a common currency, the flexible exchange rate tends to be much better understood; even by people without an economics background. In a nutshell, when a country without its own currency gets hit by some adverse shock, its exchange rate can no longer weaken and make exports more competitive. As such, nominal exchange rate depreciation cannot help to close the contractionary gap by boosting foreign demand and domestic investment, which hinders a fast recovery.

In contrast, the loss of the other stabilization channel – autonomous monetary policy – is not well understood by members of the public and many political leaders. This is despite the fact that it has an impact on a greater share of the economy, and may thus be much costlier. In order to facilitate its comprehension, Appendix B puts forward an analogy in which a country's economy is portrayed as a bus. The governor of the central bank is behind the wheel and attempts to stabilize the speed at the optimal level (natural rate of economic growth and unemployment). Stepping on the gas pedal (lowering interest rates) makes this 'econ bus' go faster, stepping on the brake pedal (increasing interest rates) slows it down.

Past experience shows that if the central bank fails its stabilization role it can have immense negative consequences. For example, Christiano et al. (2003) document that the Great Depression in the 1930s would have only been "relatively mild", not a global collapse, if central banks headed by the US Federal Reserve had been stepping on the gas pedal more aggressively during that period.[5]

[5] The influential work of Friedman and Schwartz (1963) implies that the Fed may have actually (accidently) stepped on the brake pedal during the Great Depression.

Let us now consider a group of countries adopting a single currency. All the monetary union's member countries board together the econ bus. The governor of the common central bank, the European Central Bank (ECB) in the euro area's case, is in charge of maintaining all countries' optimal speed through common monetary policy. Can that work?

In principle, if all countries experience cyclical ups and downs together, and these are of a comparable magnitude, there is no major trouble. The fact that the countries differ in the level of economic development does not pose an unsurmountable problem per se, what matters primarily is the synchronization of their short-term economic fluctuations. For example, when all member countries are in (an equally deep) recession, the governor of the common central bank steps on the gas by cutting interest rates. Such expansionary monetary policy stance brings the speed of the econ bus back to the optimal level and facilitates a recovery. This is appropriate for all members, which is why such scenario is called 'one size fits all'.

However, if the members' economic cycles are not synchronized and the countries experience different short-term swings, the opposite situation may arise. In such case, the common monetary policy stance is not appropriate for any of them, the so-called 'one size fits none' situation. Why is that? Like the driver of a normal bus, the common central bank's governor cannot step on the gas and the brake pedals jointly, thinking that this will accelerate the members in a contraction and decelerate those in an expansion.

In the case of such a dilemma, the common monetary policy is often left unchanged, or set according to the 'average' conditions of the union's members. This setting is however suitable for neither the booming countries nor the contracting countries. The latter group falls into a deeper recession because interest rates are too high. In contrast, the former group faces excessively easy monetary conditions that further fuel the unsustainable economic boom and possibly asset bubbles.[6]

[6] Recent literature has offered a number of ways to formalize price misalignments and asset bubbles, for example Leduc and Natal (2018), Klaus et al. (2017), Boz and Mendoza (2014), Brunnermeier and Sannikov (2014) and Gali (2014). It should be mentioned that monetary policy (the so-called 'leaning against the wind') is not the only way to deal with financial exuberance and excessive credit booms. Targeted macroprudential policy tools have recently emerged on the scene, and have been found superior to monetary policy by many studies (see e.g. Alpanda and Zubairy, 2017, Svensson, 2016 or Tayler and Zilberman, 2016).

There is also a third scenario. In some currency unions monetary conditions may be adjusted to suit primarily the politically stronger countries. This can be called 'one-size-fits-the-influential'. The next two sections examine the euro area, and argue that this has been the case; both pre- and post-GFC.

6. Business Cycle Synchronization in the Euro Area

Despite the above-discussed politicization of the EU monetary unification process, it is fair to say that there had existed some basis for the belief that a single market and free flow of labour would ensure greater integration and business cycles synchronization. Based on both theoretic and empirical arguments, the member countries were expected to be gradually transformed into an optimum currency area.

The necessary synchronization of the economic cycles was anticipated to occur largely before the introduction of the common currency (see de Haan et al., 2008). Nonetheless, the Maastricht criteria embedded in the 1997 Growth and Stability Pact, and the common currency itself, were supposed to improve efficiency through greater specialization and complete the cyclical convergence process among the member countries. And there was some tentative evidence in this respect. For example, Mongelli and De Grauwe (2005) examined the empirical literature and expressed "moderate optimism". They argued that "the different endogeneities that exist in the dynamics towards optimum currency areas are at work. How strong these endogeneities are and how quickly they will do their work remains to be seen".

The optimistic scenario (see Papaioannou and Portes, 2008, de Ha and Blanchard, 2004) however did not eventuate. Boglioni and Zambelli (2017) show that comparative advantages "were not exploited well" during the 1995-2011 period. Taylor (2008) finds that foreign direct investment within the euro area was "weak" once the flows to and from the Belgium–Luxembourg Economic Union are removed. Polak's (2018) meta-analysis of 60 studies reports that "the mean reported estimate of the euro's trade effect conditional on best-practice approach is 3%, but is not statistically different from zero".

Most importantly, the business cycles of the euro area countries were highly desynchronized before the GFC, and continued to be so afterwards. This is the case not only for the periphery and the core taken as two groups, but also for individual

countries within these groups. The fact that the core and periphery tended to move in opposite directions has given rise to the expression 'two-speed Europe' (for a discussion of some deeper reasons see Gambarotto and Solari, 2015, for empirical evidence on the lacking convergence see e.g. Campos and Macchiarelli 2018, Martinez-Martin et al., 2018, or Gough, 2013).

To document, Figure 4 plots a direct measure of business cycle correlation by Martinez-Martin et al. (2018). The blue line shows that there was very little business cycle synchronisation in the euro area as a whole prior to the GFC. And while the level increased somewhat during the recession of 2008-2009 – as expected during a global downturn – it has returned to fairly low levels since.[7]

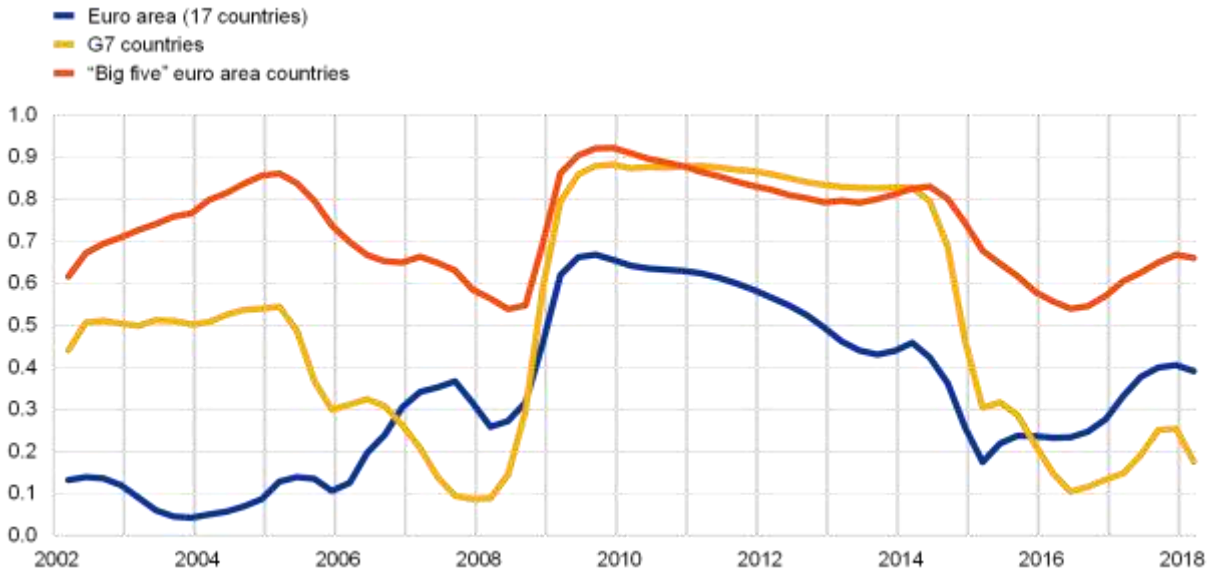


Figure 4: Business cycle correlation for selected groups of countries. It is presented as a weighted average of pairwise cross-country correlations of real GDP growth over a five-year rolling window. Source: Martinez-Martin et al. (2018).

The estimates of Campos and Macchiarelli (2018) also provide strong evidence of the lack of business cycle synchronisation within the euro area. Unlike most of the literature that uses static binary classifications to make the analysis tractable, the authors examine whether output is quantitatively and qualitatively affected by supply-side shocks across countries – using magnitude and sign restrictions. Their measure of

[7] The discussion will not cover the recent effects of the Covid-19 pandemic. This is both because of unavailability of data, and because the global nature of the shock is likely to overshadow many of the underlying heterogeneities at play.

business cycle asymmetries (called NORD) is thus theory-based, time-variant and not binary.

Going back in time to 1987, their analysis shows that "in the beginning, there was periphery". The authors observe that "the first three countries to enter the core are Germany, France, and Austria, all by 1999… Belgium joins the core in 2000, and Italy and the Netherlands join in 2005 and 2007, respectively." They define "joining the core" as a situation of their asymmetries measure falling below 50%. The case of the rest of the euro area countries was however different, and the level of business cycle asymmetries remained very high. Specifically, it has been above 80% for Ireland, Finland and Portugal, and mostly within the 60-90% interval for Spain, Greece and Italy (for the latter country it is has decreased to around 40-50% since the GFC).

In the same spirit, the analysis in Beck (2020) demonstrates that the business cycles are in Eastern European countries are quite distinct from their euro area counterparts (for an in-depth investigation of the Czech Republic case see Bednar and Bechny, 2020). Furthermore, Beck shows that countries within the latter group have been experiencing divergence of their cycles.

7. Whom Has the One Size Fit?

Given the desynchronized cycles in the euro area, it is relevant to consider how the ECB's common monetary policy has been set. The data show that interest rates have generally been tailored to suit Germany and other core countries; both before and after the GFC (see e.g. Forbes, 2018, Vermeiren, 2017, or Wortmann and Stahl, 2016). This suggests that the euro area falls into the 'one-size-fits-the-influential' category.[8]

In particular, in the 2000-2007 period ECB's interest rate setting was quite expansionary to stimulate the core countries, with little regard of the overheated economies and financial markets at the periphery. Research shows that these were not minor discrepancies. For example, Nechio (2011) estimated 'optimal' (Taylor-rule derived) interest rates for the core and periphery as groups. Her analysis shows that the official euro area policy interest rate was lower than optimal for the periphery by more than four percentage points (400 basis points) for the whole 2000-2007 period.

[8] The same 'favouritism' seems to have been applied in the area of financial stability regulation, see Donnelly (2014).

This is a massive amount of overstimulation that necessarily leads to misallocation of capital and a boom-bust cycle.[9]

Darvas and Merler (2013) use Nechio's (2011) methodology to examine the individual countries. As Figure 5 demonstrates, the results are even more revealing.

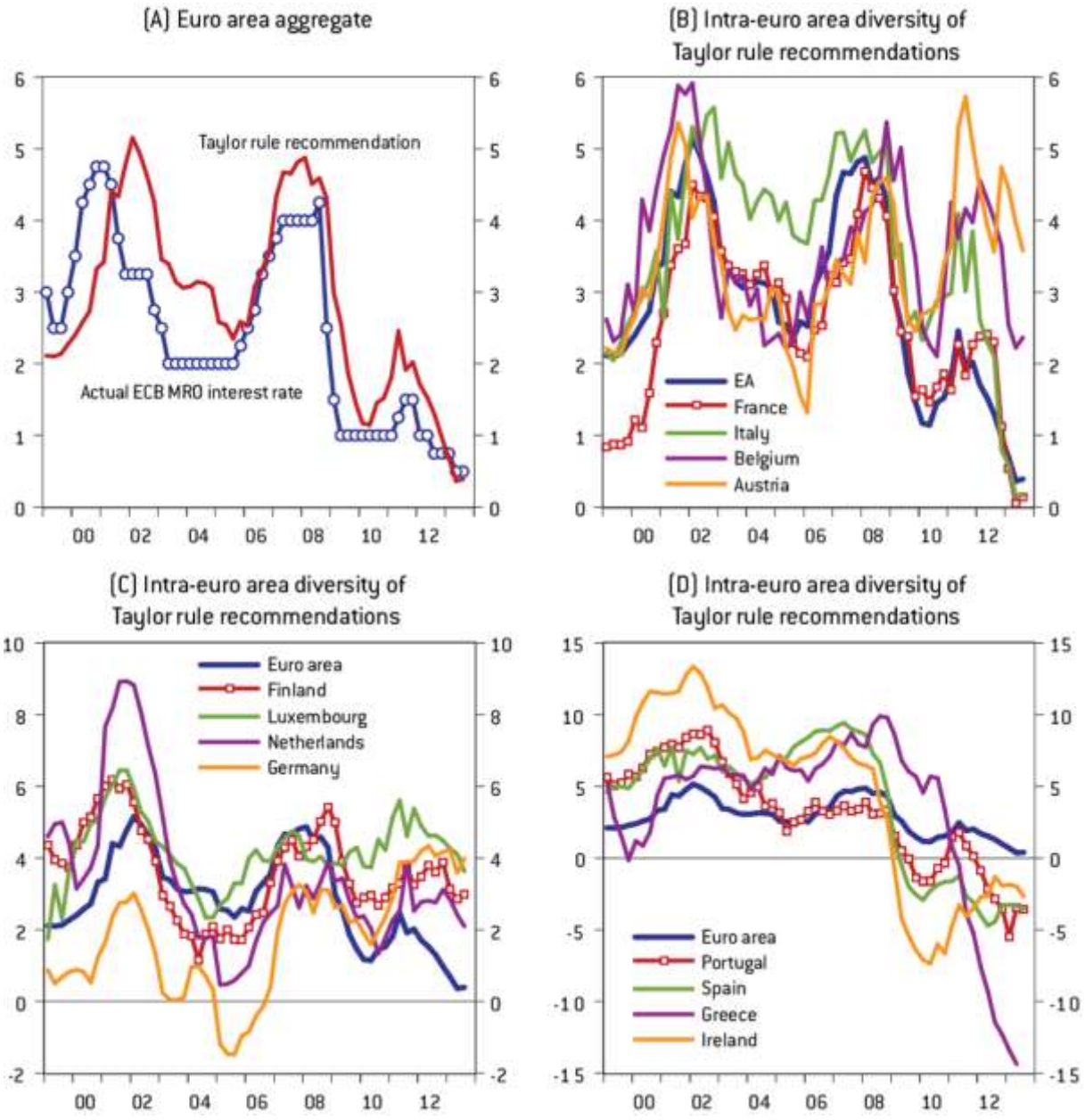


Figure 5: Official interest rates (in %) in the euro area (MRO, Main refinancing operations) and Taylor-rule implied interest rates for individual members. Source: Darvas and Merler (2013).

[9] And it should be noted that the Taylor-rule implied rate is only based on macroeconomic conditions (consumer-price inflation and output). If asset inflation is taken into account the implied rate (and the degree of ECB's pre-GFC overstimulation) would have been much higher still.

For instance, for Ireland the Taylor-rule implied rate during 2001-2003 was between 10 and 15% (see panel D), whereas ECB's official rate was only between 2 and 4% over this period (see panel A). So much so for an optimum currency area.

This extremely loose pre-2008 monetary policy in the periphery led to soaring wages and inflation, causing loss of competitiveness relative to the core countries (see Thimann, 2015). Worse still, these low interest rates made the financial markets in the periphery countries go wild, as documented above. It can therefore be argued that this inadequate monetary policy was largely responsible for the periphery's exuberant stock market, banking, and housing growth (bubbles) prior to 2008. Naturally, it was not the only contributor; other factors such as demographical trends (the 'global saving glut', see Bernanke, 2005) also played a role.

With the exception of a 2-year period around 2008, the situation of a two-speed Europe continued until today 2020. Only the roles of the core and periphery got reversed after the GFC (with a handful of exceptions). Post-2008, the common monetary policy became too tight rather than too easy for the periphery, and it has been excessively loose for the core. For example, in mid-2012 the Taylor-rule interest rate for the periphery was deep in the negative territory (-7.75% for Spain and -10% for Greece, see panel D of Figure 5). In contrast, the ECB rate was kept near 4% (which was roughly the Taylor-rule implied level for Germany; see panel C, and for more discussion Soberlook, 2012). The resulting economic differences between the core and the periphery are clearly visible in the headline macroeconomic measures, for example in Figure 3 above.

Our discussion has two main implications. First, the popular narrative of blaming (fiscal) irresponsibility of the periphery countries for their economic misfortunes is (with a partial exception of Greece) incorrect. Their policies and outcomes were largely endogenous, driven mainly by the developments set in motion by their membership in the euro area and incentives implied by the EU legislation (see e.g. Fernandez and Garcia, 2018). Second, while difficult to formally quantify, it seems very likely that the above-discussed costs of euro adoption in the periphery have exceeded the benefits.

Should the problems of the euro area be considered a surprise? Arguably not. Apart from the cited research that had flagged the looming problems, there were some

historical cautionary tales on offer prior to the establishment of the euro. They are discussed in the next section, making it evident that they were (for the most part) ignored in the euro area's design process.

8. Lessons from Other Monetary Marriages

To see the bigger picture of European monetary integration, it is informative to revisit two monetary unions in Europe at the turn of the nineteenth and twentieth centuries. The Latin Monetary Union (1865-1927) and the Scandinavian Monetary Union (1873-1924) tend to be forgotten, but they provide a lot of useful lessons for the euro area and the desirability of its further enlargement.[10]

The history of the Latin Monetary Union (LMU) documents the many pitfalls of currency unification. In contrast, the Scandinavian Monetary Union (SMU) worked fairly well, primarily because it avoided the same mistakes. Which of these two paths the euro area will choose going forward will largely determine the answer to the question of whether additional countries should join it at some point in the future. Drawing on all available historical lessons seems advisable, because as George Santayana argued more than a century ago, "Those who cannot remember the past are condemned to repeat it."[11]

The LMU was established in 1865 as a pompous bond of Belgium, Switzerland, Italy and France. The latter country played the leading role in the LMU and its primary motivation was to compete with Great Britain to become the centre of the financial world. Therefore, the French franc also served as a standardized monetary unit in the LMU, although the other original currencies remained in operation.

This points to one historical parallel with the euro area, namely that the reasons for the creation of the LMU were largely political – although the need for economic coordination due to the fluctuating prices of gold and silver played a role as well. It is also noteworthy that Greece joined two years later, i.e. with the exact same delay as it

[10] I will throughout this section use the term monetary union in a broader sense as featuring a common currency, not necessarily requiring all the characteristics that constitute a "true monetary union" in the language of Ryan and Loughlin (2018). Their paper also offers a discussion of another monetary union, which was in operation in the Austro-Hungarian Dual Monarchy at a similar time as the other two.

[11] For more detailed discussions of one or both of these monetary unions see e.g. Dooley (2019), Einaudi (2018), Ryan and Loughlin (2018), Fendel and Maurer (2015), Bae and Bailey (2011) and Bergman (1999).

joined the euro. Another historical parallel, relevant primarily to the Czech Republic and Hungary, is that the Austro-Hungarian Empire decided not to join the LMU. This was partly for the above macroeconomic reasons that still speak against further enlargement of the euro area today.

Similarly interesting is the fact that Great Britain was considering its LMU membership, but eventually chose to follow its own path. Therefore, the country's preference to stay out of the European integration currents, evident from its decision not to adopt the euro and even more strongly from the Brexit, should not surprise much. Its roots are much deeper, going back to at least the separation from the Roman Catholic Church during the reign of Henry VIII of England in the 16th century.

The LMU itself did not work very well. This was because – like in the euro area – fiscal discipline was more a science-fiction concept than reality. LMU's member further lacked political cohesiveness and pursued their own interests. Their union thus functioned only as a 'marriage of reason', because it was clear to the four countries, similarly to the current euro area members, that a potential divorce would be very costly. The official break-up of the Latin Monetary Union was thus held off until it was triggered by World War I, in combination with the abandonment of the gold standard.

World War I also gave a fatal blow to a much more modest, but much more viable, partnership in the north of Europe: the SMU. Its members, namely Denmark, Norway and Sweden, were initially considering saying their monetary 'I do' to Great Britain, Germany or the Latin Monetary Union. However, they did not let the politics to be the main force behind the decision and in 1873 they formed their own currency union largely for economic reasons. Needless to say that such union had much stronger foundations.

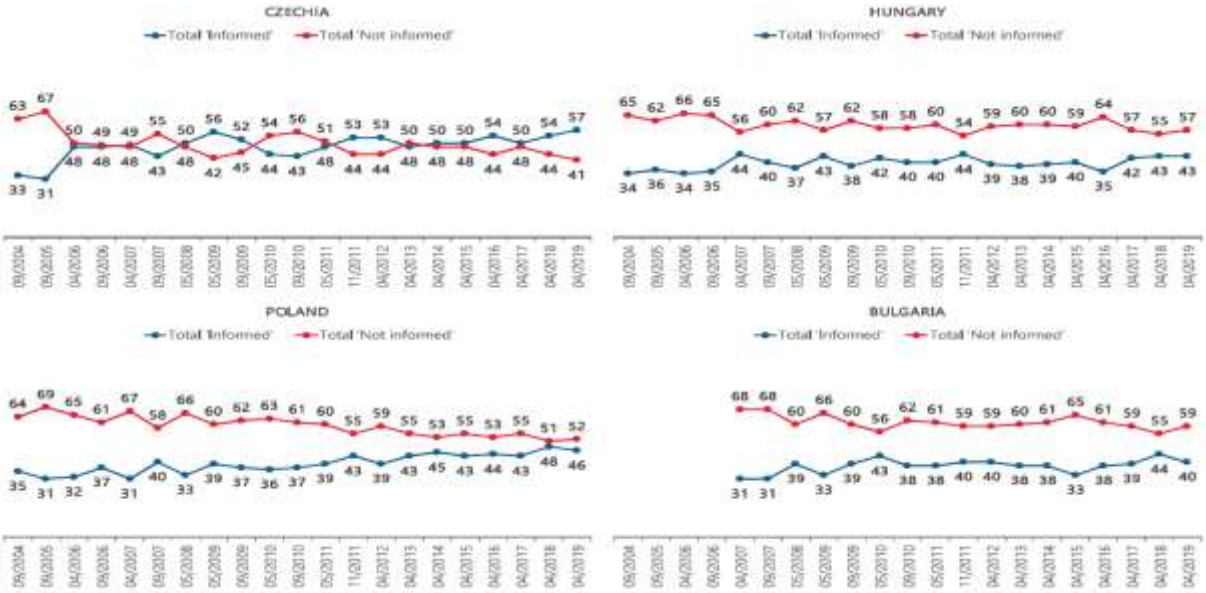
A curious historical parallel is that the Norwegian Parliament first rejected the treaty, suggesting that the Norwegians already had some inhibitions towards European integration back then. These resurfaced more than a century later in their 1994 referendum decision that kept Norway outside the European Union. With the emergence of the SMU a new unit of account – krone – saw the light of day, but the original currencies continued to act as legal tender. This is one of the several features indicating that the SMU had no dominant member, unlike the LMU and the euro area. Although trade between the three countries did not grow significantly and their

economies differed in their structure, the SMU period can be regarded as a success. It was enabled by strong fiscal discipline, pursuing common interests, as well as by maintaining a stable financial and macroeconomic environment. These lessons are still relevant for the euro area today.

9. Making an Informed Choice?

The above discussion implies that it is of paramount importance for the public and politicians in the seven countries on the accession list to be informed about all the potential pros and cons of a monetary union. Only then will they be able to make the right choice about euro adoption. This however does not seem to be the case.

To tease out the public opinion ‘unbiased’ by the Covid-19 pandemic, we will use surveys from 2019 reported in European Commission (2019). Combining the responses across all seven countries implies that about half of the respondents did not feel sufficiently informed about the euro. In fact, until 2018 the group of people feeling uniformed about the euro was larger than the informed group in all of these countries except two.



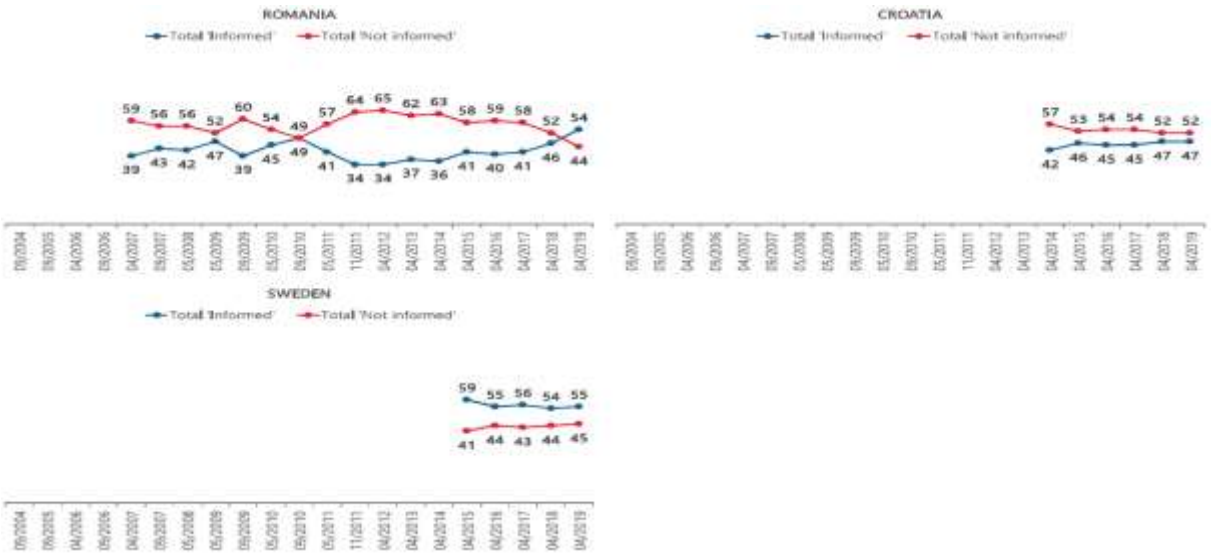


Figure 6: Answers to the question "To what extent do you feel informed about the euro? Do you feel: (%)". Source: European Commission (2019).

Even if we put aside the fact that many of those who feel informed may actually have insufficient knowledge, the survey underscores the lack of people's awareness of this important issue.[12] What is worth highlighting, the support for euro adoption has been stronger in the 'uninformed' countries, as evident in Figure 7.

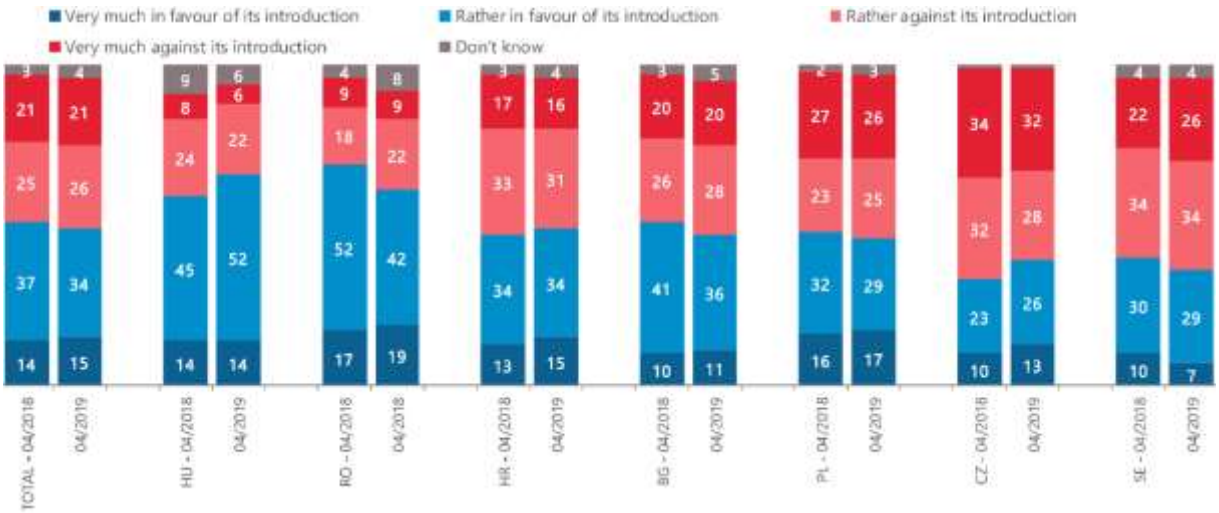


Figure 7: Answers to the question "Generally speaking, are you personally more in favour or against the idea of introducing the euro in (OUR COUNTRY)? (%)". Source: European Commission (2019).

[12] More discussion appears in Appendix C, drawing on the comprehensive 'informed-voter' index by Janku and Libich (2019). Out of the seven countries on the euro accession list and five periphery countries, only Sweden makes their top group of countries with well-informed voters. For more details on the economic prospects of the countries on the accession list see the papers in the special issue by Cerqueira et al. (2018).

The greatest level of accession endorsement (blue areas) appears in Hungary, Romania, Croatia and Bulgaria, all of whom belong to the relatively less-informed countries on the list. In contrast, the respondents in the Czech Republic (Czechia) and Sweden are the best-informed amongst the seven countries, and they are fairly strongly against euro introduction (red area).[13]

Given the substantial implications of joining a currency union, it is imperative that the decision is based on sound economics. Many authors have however documented that it has not been the case in the EU, where political considerations tended to prevail over economic ones (see e.g. Stiglitz, 2016, De Grauwe, 2013, Spolaore, 2013, Feldstein, 2012, Bordo a Jonung, 1999 or Eichengreen and Frieden, 1993).[14] Insufficient awareness on the part of both the public and politicians probably explains why.

10. How Can the Monetary Arrangements in Europe be Ameliorated?

The first necessary step in rectifying the euro area situation is to initiate a broader and more informed discussion regarding the potential pros and cons of the common currency. Advances in economic and financial literacy of the public thus seem to be a priority in this respect.

In terms of the specific economic areas for improvement, the literature is fairly united. It generally implies that the single currency should not be blamed for all the euro area ailments, because the deeper reasons are populist short-sighted policies and unwillingness to solve longer-term structural challenges in a conceptual way. The literature puts forward a number of reform proposals that could in principle alleviate the main deficiencies, and move the euro area closer towards a textbook optimal currency area (for some important limitations of this theory in relation to the euro area see Toporowski, 2013).

There are many valuable contributions in this respect, see e.g. Berger et al. (2019), Bénassy-Quéré et al. (2018), Herzog (2018), Eijffinger et al. (2015), Eichengreen and

[13] Between 2018-2019 Romania saw its informed group becoming slightly larger than the uninformed group, but the number of Romanians in the "I don't know" category doubled over this period.
[14] The statement of Jacques Delors is used as the traditional example. In his 1988 speech the then President of the European Commission predicted that "in ten years, 80% of the legislation related to economics, maybe also to taxes and social affairs, will be of [European] Community origin."

Wyplosz (2016), Feld et al. (2015), Iara and Wolff (2014), O'Rourke and Taylor (2013), Hughes Hallett and Jensen (2012), Lane (2012) and the papers appearing in the special issue introduced by Blankenburg et al. (2013). I will not discuss them in detail, and instead only briefly outline the three key (mutually supportive) areas for enhancement of the euro area's institutional setup that most studies agree upon. They emphasize the need for: 1) greater fiscal risk sharing, 2) improved budgetary rules to discourage moral hazard, and 3) financial sector regulation reforms.

In relation to the first risk-sharing area for improvement, the obvious point of reference is the currency union in the United States. It teaches us how important coordination of targeted fiscal policies may be in a monetary union to achieve state/regional macroeconomic stabilization. Using our earlier analogy, when some countries travel at sub-optimal speeds due to idiosyncratic shocks, and common monetary policy cannot help, fiscal transfers from countries going too 'fast' help the trailing countries to recover. This reduces macroeconomic fluctuations in both groups of countries. Fiscal stabilization in the euro area is even more important than in the United States because, as Bayoumi and Eichengreen (2019) demonstrate, the former is further away from being an optimal currency area than the latter.

Unlike in the United States however, in the euro area a more coordinated fiscal approach, let alone a fiscal union, seems to be currently out of the question due to the complicated domestic politics. Voters in the core countries seem to (increasingly) oppose their taxes going to the periphery, even if it is only for short-term stabilization purposes.

There is no agreement in the literature on whether a fiscal union is a necessary condition of a functioning monetary union. Some papers (including the early contribution by Bean, 1992) argue that it is not, and believe that well-designed fiscal rules can substitute a fiscal union. In the euro area fiscal rules would however have to be reformed substantially to serve that purpose.[15] There are two key aspects that require fixing.

It seems imperative that fiscal rules in the euro area be broadened. They are currently only postulated in terms of the annual budget balance and official public debt, which

[15] Iara and Wolff (2014) provide empirical evidence that the insufficient strength of the rules has driven risk premia in the euro area.

are incomplete and inadequate indicators of the fiscal position. The rules should re-focus on long-term measures such as the fiscal gap (discussed in Appendix A), also to allow more short-term flexibility in stabilizing large shocks such as the GFC and the COVID-19 pandemic. Furthermore, the penalties for the breach of the long-term oriented fiscal rules must be made stricter and enforced automatically, ensuring independence from the domestic and EU-wide political process.[16] General compliance of all members with long-term oriented rules would arguably lead to reducing the idiosyncratic differences and closer business cycle synchronization.

The reforms to fiscal rules seem vital not only for the euro's sake, but also (primarily) due to the long-term sustainability problem. Nonetheless, the reality has been different in the post-2010 period. Rather than conducting a much-needed systemic reform of their pension and health care systems (reducing reliance on pay-as-you-go financing), most euro area leaders have been making short-term oriented budget cuts. In an attempt to comply with the myopic fiscal rules, politicians commonly reduced essential spending on education, research and infrastructure investment – despite the ongoing recession.

So while the economies (especially at the periphery) needed short-term fiscal stimulus combined with long-term fiscal austerity, exactly the opposite policy mix got implemented after 2010.[17] Such policy mix created a vicious circle. Arbitrary expenditure cuts slowed down economic growth, especially in the South of Europe, failing to improve the long-term fiscal outlook, quite the contrary. As a consequence, fear of secular stagnation has been gaining prominence (see Rachel and Summers, 2019). The COVID-19 pandemic has intensified these concerns; both in terms of long-term fiscal sustainability, and in terms of secular stagnation.

Similar absence of a conceptual solution is evident in the third area for improvement discussed in the literature, financial regulation. Research by reputable organizations and economists has shown that the current structure of the financial system, both in

[16] To document the lack of fiscal discipline, Eurostat data show that in the 1999-2007 period there have been 34 instances of a country breaching the 3% of GDP budget deficit Maastricht criterion. Germany and France were responsible for nine of these breaches, with no consequences imposed.

[17] This situation can be compared to newlyweds who repay their growing debts with credit cards instead of cutting out on their lavish spending. Such misguided strategy was motivated by the 'expansionary contractions' work of Alesina and Ardagna (1998) and (2009), which has however not received empirical support (see e.g. Breuer, 2019).

the EU and globally, is inadequate (for a summary see e.g. the collections of papers in Blinder, et al., 2012 and Turner et al., 2010).

The past four decades have seen a 'financialization' trend that went hand in hand with financial deregulation (see Johnson and Kwak, 2010). It featured a proliferating cost of financial intermediation (e.g. Philippon, 2010). Furthermore, we have witnessed increasingly risky behaviour on the part of banks and other financial institutions (see Bell and Hindmoor, 2018 and Haldane et al., 2010). These developments were in line with Keynes (1936), who was concerned that "When the capital development of a country becomes the by-product of the activities of a casino, the job is likely to be ill-done." The financialization process can be seen as a result of various factors, bearing the signature of both market failures and government failures. Investors' myopia and the resulting financial cycles (in the spirit of Minsky, 1974) fall in the former category. Excessive financial deregulation, government guarantees to 'too-big-to-fail' institutions and other moral hazard inducing provisions fall into the latter category. For example, Boone and Johnson (2010) estimate that taxpayers in the United States and Europe backed a whopping $65 trillion (250% of their GDP) in implicit obligations.

Apart from increasing the likelihood of costly financial crises, the financialization trend has a number of other negative consequences. For example, it impairs the functioning of monetary policy (Brunnermeier and Sannikov, 2014), it leads to lower productivity and economic growth (Cecchetti and Kharroubi, 2015), it increases unemployment (Assa, 2012) and it fuels inequality (de Haan and Sturm, 2017).

The situation in the euro area is, in some respects, even worse than elsewhere due to its interconnectedness of sovereigns and banks. For example, Bayoumi and Eichengreen (2019) argue that "the euro area continues to display a procyclical and destabilizing banking and financial cycle" (see also Fernandez-Villaverde et al., 2013 or Hodula and Libich, 2020). Bayoumi and Eichengreen (2019) further stress the need for a "more vigorous, coordinated regulation of the European banking and financial system". They conclude that "monetary union without banking union will not work".[18]

It should be acknowledged that the Single Supervisory Mechanism and the Single Resolution Mechanism, implemented in 2014 and 2015 respectively, attempt to go in

[18] Relatedly, Berger et al. (2019) demonstrate that "a no-bailout policy within a monetary union cannot be credible and, hence, needs to be replaced by an improved set-up".

the direction of a banking union. However, they need to be accompanied by a European deposit insurance scheme to make them fully functional, which has not been the case (at least yet). A unified financial transaction tax (in the spirit advocated by Keynes, 1936 and Tobin, 1972), would also be desirable (see e.g. Westerhoff and Dieci, 2006 and McCulloch and Pacillo, 2011).

In addition to these three areas for improvement, many others have been discussed. For example, it has been argued (see e.g. Schmitt-Grohe and Uribe, 2013) that the euro area's inflation target should be increased by 2-3 percentage points for several years in major downturns such as 2007-2009. This would allow more effective nominal adjustment, and it would hence be especially useful in the euro area due to structural and nominal rigidities in the labour markets of member countries (see e.g. Thimann, 2015; for a broader survey of the EU labour market see Arpaia and Mourre, 2012). Another area is the nexus between monetary and fiscal policy, and the long-term impact of the ECB's ongoing "whatever it takes" commitment (combined with uncertainty about its lender-of-last-resort role). It has been feared that the unprecedented unconventional monetary policy measures implemented in the past several years, and intensified in 2020, may bring about a multitude of problems down the track.

11. Summary and Conclusions

This article reviews the literature and data regarding advantages and disadvantages of the euro, with emphasis on the desirability of its future expansion. The economic consequences for Europe and the rest of the world are substantial, which implies the importance of the public's and politicians' deeper understanding of the euro area's associated trade-offs.

The key message for the seven countries on the waiting list is that they would be best advised *not* to go ahead with euro accession. If they rush adoption of the common currency despite the above-discussed vagaries of the euro area design, it will be at their own peril as they may follow in the footsteps of the existing periphery countries. Furthermore, they will be unable to subsequently resort to the usual divorce justification "I had no idea my partner would change so much". Such justification may perhaps be used by the early euro adopters, because in the 1990s there had existed no decisive

evidence regarding the cons of the single European currency. But this is no longer the case; the ongoing problems and future risks of further euro-area enlargement have become increasingly clear and documented in recent studies.

Given the dire economic outcomes at the euro area's periphery since the GFC, it may seem puzzling that the support for the euro has remained strong in these countries (see European Commission, 2018). There are two possibilities. First, it may be that the public does not fully understand the causal link between the single currency and their country's sub-par economic outcomes. This may be why people's frustration over poor economic outcomes has been directed at the European Union as such, rather than at the euro. Alternatively, people may (rightly or wrongly) think that their national policymakers cannot be trusted, and the economic situation would have been even worse if they had kept their own currency.[19]

It should however be stressed that the latter explanation does not apply to the countries on the euro accession list. Their economic performance has generally been solid in the post-GFC period, so the potential benefits of euro adoption are likely to be smaller than the potential costs. Adopting the common currency therefore seems like an unnecessary risk, with little to gain a potentially a lot to lose.

It must also be highlighted that apart from the implications for euro area enlargement, the problems caused by the euro endanger the future of the EU as such (Stiglitz, 2016). Hand in hand with the build-up of economic imbalances, nationalistic voices have been growing stronger in most countries (see e.g. Colantone and Stanig, 2019). They have been changing the political landscape dramatically with the Brexit serving as a telling example. As Ryan and Loughlin (2018) stress, "Remembering the importance of national sentiment is particularly important today as the Eurozone crisis showed resentments build both in debtor and creditor nations."

Will the Latin saying "Historia magistra vitae est" (history is the teacher of life) apply to the euro area? We are yet to find out. The necessary reforms (discussed in the previous section) are fairly well-understood and agreed upon. They could be implemented relatively quickly if there is political will. However, unless leading euro area countries start taking their 'marriage' more responsibly, that is, unless they have

[19] For example, many Greeks may still remember the two decades of double digits inflation prior to the mid-1990s.

enough political coherence and economic discipline in fiscal, banking, and integration issues, their monetary partnership is doomed to endless problems. As succinctly expressed by Cohen (2012): “The euro will neither fail nor succeed. Defective but defended, it will simply endure.”

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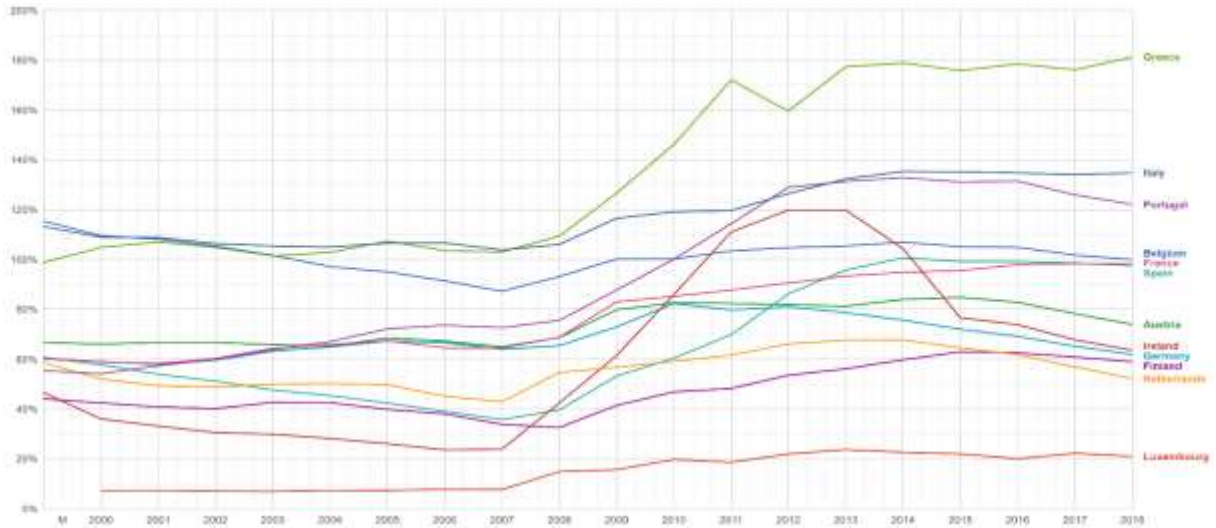
Appendices

Appendix A: Fiscal Sustainability in the EU

The issue of fiscal sustainability is essential for the EU going forward, so let us provide some more details. The top panel of Figure 8 plots the levels of public debt to GDP for the early adopters of the euro. From a historical viewpoint, these values are very high, and this is despite the low levels of interest rates that keep interest repayments low. To document, in 2016 (i.e. almost a decade after the start of the GFC) only one country complied with the 60% debt-to-GDP Maastricht criterion (and while two others subsequently met this target, the 2020 pandemic has worsened the situation dramatically). The bottom panel of Figure 8 reports the corresponding public debt levels for the 7 countries on the euro waiting list. They are markedly lower, about half on average (for a detailed analysis see Łyziak and Mackiewicz-Łyziak, 2019 or Bökemeier and Stoian, 2018).



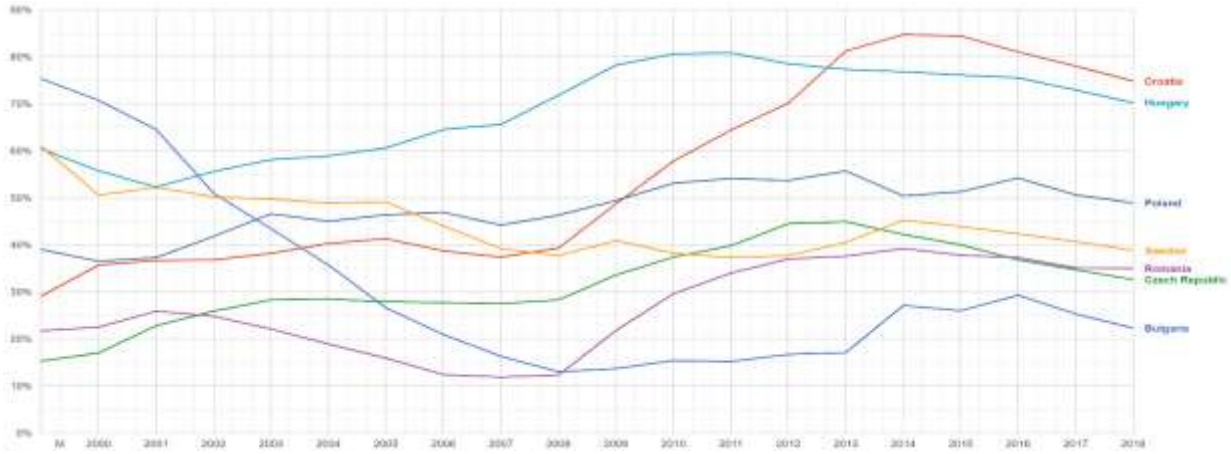


Figure 8: Levels of 2018 general government debt as a proportion of GDP. Source: Google Data (2020).

Nonetheless, as stressed by many researchers, these official debt-to-GDP numbers do not tell the whole story about the gravity of the fiscal problem facing most euro-area countries. This is because they do not include many relevant items such as public pension/healthcare liabilities (expected to grow substantially due to ageing populations) and implicit guarantees to 'too-big-to-fail' financial institutions.

A much more relevant measure, the 'fiscal gap', expresses the present value of all expected future public liabilities net of revenues (for details see Auerbach et al., 1991 and 1999). Based on this measure, even the euro's core and most other high-income countries have a major long-term fiscal sustainability problem.

To document, Merola and Sutherland (2012) report fiscal gaps as the permanent annual change in the underlying primary balance to GDP that is needed to reduce gross financial liabilities to 50% of GDP in 2050. Their pre-COVID-19 estimates imply that large primary budget surpluses are required every year to stabilize government debt at a reasonable level. For example, Luxembourg's figure is over 9% of GDP, meaning that the country would have to run budget surpluses of 9% of GDP annually to stabilize debt at the 50% of GDP level by middle of this century (despite the fact that its debt is currently only 20% of GDP). The Irish figure is also around 9% of GDP, and the values for Finland, France, Belgium and the Netherlands are in the 5-6% of GDP ballpark. The adjusted figures taking into account the effect of the 2020 pandemic would be much higher still.

The need for such major permanent fiscal consolidation poses a considerable challenge, both economically and politically. To appreciate this, it suffices to recall that even during the prime boom period of 2004-2006, in which most euro area economies performed well above potential, only two out of the original 15 EU countries (namely Finland and Ireland) managed to run budget surpluses every year.

Appendix B: Taking a Ride Together

In order to enable a broader understanding of the single currency's cons, which are subtler than the pros, let us expand on the above analogy of an 'econ bus'. It can be used to explain the potential problems of common monetary policy in a highly heterogeneous currency union to a lay audience.

The econ bus carries onboard all individuals, firms and other economic subjects. Like for a normal bus, for the econ bus there exists some optimum speed with which it should be moving forward. For example, it may be 50 km per hour in urban areas for the normal bus and 2% potential GDP growth for the econ bus.[20] The optimal speed of a normal bus balances the risk of an accident with the need to get to the destination quickly. Correspondingly, for the econ bus the optimal speed balances the risk of inflationary pressures and financial exuberance against the desire to advance people's prosperity fast. Further, in the same way that a normal bus automatically accelerates or decelerates based on road conditions, the speed of the econ bus fluctuates due to various internal and external disturbances. Both buses therefore need an experienced driver to maintain the speed close to the optimal level.

When the economy slows down, for example as a result of pessimism amongst consumers or a recession in a neighbouring country, the central bank behind the wheel steps on the imaginary gas pedal. It increases the money supply in the economy through open market operations (buying short-term government bonds), and such cheaper money (a lower interest rate) incentivizes firms and households to invest and spend more. This boosts employment and aggregate demand, helping the economy to recover and bring the bus's speed back to the optimal level.

[20] The optimal speed of either bus may obviously change over time, but for the purposes of the argument's clarity let's assume it is constant.

Conversely, when the economy is overheating, for example because of excessive optimism, the bus is racing through the city streets at dangerous speeds. The central bank steps on the brake pedal by raising interest rates, which weakens the investment appetite of firms and motivates households to save more. GDP then falls back to its potential growth rate and inflationary pressures are reduced.

In the main text I use this econ bus analogy to discuss the importance of autonomous monetary policy, and the challenges facing heterogenous currency unions with desynchronised business cycles - in which some countries need the driver to step on the break and some on the accelerator.

Appendix C: Level of Voters' Awareness

Although making an informed decision about euro adoption is paramount, public's awareness seems to be lacking. Let us provide further details based on Janku and Libich's (2019) comprehensive 'informed-voter' index. It measures how informed OECD voters are, and implies that countries can be split into three categories featuring well-informed, moderately-informed and poorly-informed voters (see Figure 9).

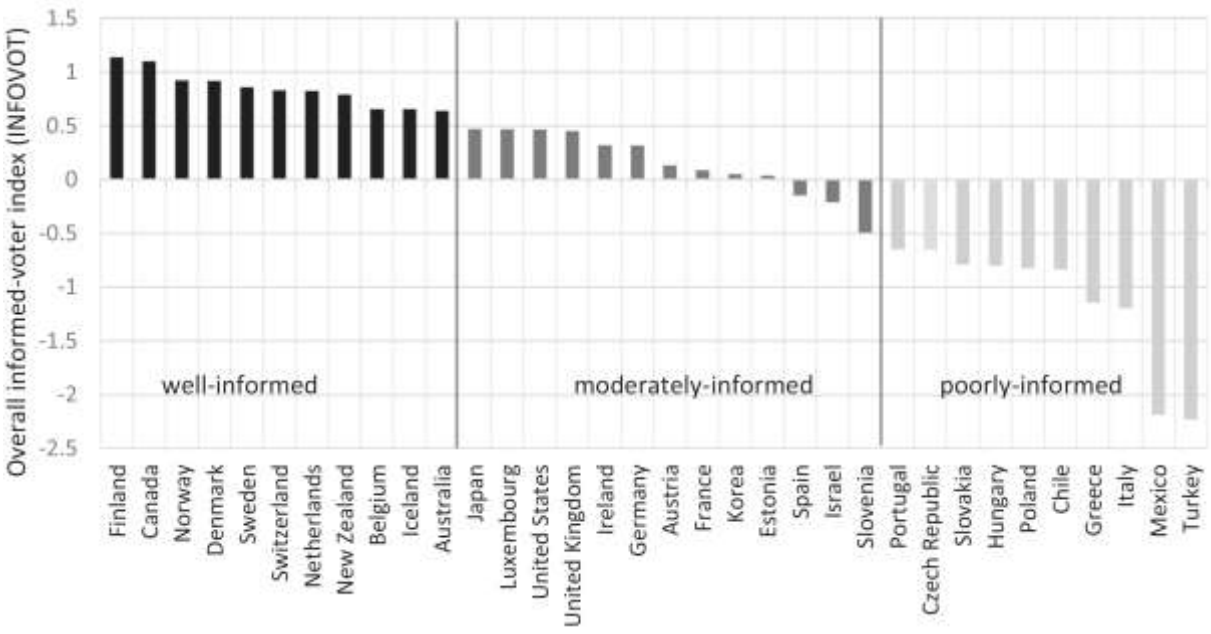


Figure 9: The overall Informed-voter index for OECD countries over the 1995-2014 period. Source: Janku and Libich (2019).

The empirical analysis in Janku and Libich (2019) examines whether/how occurrence of political budget cycles in election years depends of the level of the voters'

awareness. It shows that only in the top group of OECD countries with well-informed voters politicians do not ‘bribe’ the electorate with increased government expenditures in election years. In contrasts, in the countries with poorly- and moderately-informed voters such pre-election bribery has taken place (in the former group both before and after the GFC, in the latter group only before the GFC). The fact that such political cycles lead to very costly fiscal and macroeconomic cycles implies that ignorance is not as blissful as sometimes proclaimed.

There exists a substantial literature on this topic, but it generally concludes that such political budget cycles induced by bribing uninformed voters only occur in ‘developing’ countries or new democracies (for a discussion see e.g. Streb et al., 2009). Janku and Libich (2019) however demonstrate that this is not the case, and that the majority of the euro-area countries, as well as the potential adopters, have insufficiently informed voters. In terms of the euro area’s periphery countries, three of them fall into the poorly-informed voters category (Greece, Italy and Portugal) and two into the moderately-informed voters category (Ireland and Spain). Except for Sweden, all the countries on the accession list (that are members of the OECD) fall in the category with poorly-informed voters, see Figure 9.