Dabrowski, Marek

Research Report

The economic and monetary union: Past, present and future

CASE Reports, No. 497

Provided in Cooperation with:
Center for Social and Economic Research (CASE), Warsaw

Suggested Citation: Dabrowski, Marek (2019) : The economic and monetary union: Past, present and future, CASE Reports, No. 497, ISBN 978-83-7178-680-8, Center for Social and Economic Research (CASE), Warsaw

This Version is available at:
https://hdl.handle.net/10419/227642

CASE Reports

The Economic and Monetary Union: Past, Present and Future

Marek Dabrowski

No. 497 (2019)

This article is based on a policy contribution prepared for the Committee on Economic and Monetary Affairs of the European Parliament (ECON) as an input for the Monetary Dialogue of 28 January 2019 between ECON and the President of the ECB (http://www.europarl.europa.eu/committees/en/econ/monetary-dialogue.html).

WARSAW BISHKEK KYIV TBILISI CHISINAU MINSK

"CASE Reports" is a continuation of "CASE Network Studies & Analyses" series.

Keywords:
European Union, Economic and Monetary Union,
common currency area, monetary policy, fiscal policy

JEL codes:
E58, E62, E63, F33, F45, H62, H63

DTP:
Tandem Studio

EAN:
9788371786808

Publisher:
CASE – Center for Social and Economic Research
al. Jana Pawła II 61, office 212, 01-031 Warsaw, Poland
tel.: (+48) 22 206 29 00, fax: (+48) 22 206 29 01
e-mail: case@case-research.eu
http://www.case-researc.eu

Contents

List of Figures

List of Tables

List of Abbreviations

BLEU	Belgium-Luxembourg Economic Union
BU	Banking Union
EA	Euro area
ECB	European Central Bank
ECOFIN	Economic and Financial Affairs Council
ECU	European unit of account
EDIS	European Deposit Insurance System
EDF	Excessive Deficit Procedure
EEC	European Economic Community
EFSF	European Financial Stability Facility
ELA	Emergency Liquidity Assistance
EMCF	European Monetary Cooperation Fund
EMI	European Monetary Institute
EMS	European Monetary System
EMU	Economic and Monetary Union
ERM	Exchange Rate Mechanism
ESCB	European System of Central Banks
ESM	European Stability Mechanism
EU	European Union
GDP	Gross Domestic Product
GG	general government
IMF	International Monetary Fund
MIP	Macroeconomic Imbalance Procedure
MRO	Main Refinancing Operations
OCA	optimum currency area
SGP	Stability and Growth Pact
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
UK	United Kingdom
US	United States (of America)
USD	United States dollar
WWI	World War I
WWII	World War II

Author

Marek Dabrowski is a Co-founder and Fellow at CASE – Center for Social and Economic Research in Warsaw, Non-Resident Scholar at Bruegel, Brussels, and Professor of the Higher School of Economics in Moscow. He was Chairman of the CASE Supervisory Council and President of its Management Board (1991–2011), Chairman of the Supervisory Board of CASE Ukraine in Kyiv (1999–2009 and 2013–2015), and Member of the Board of Trustees and Scientific Council of the E.T. Gaidar Institute for Economic Policy in Moscow (1996–2016). He also held the positions of First Deputy Minister of Finance of Poland (1989–1990), Member of Parliament (1991–1993), and Member of the Monetary Policy Council of the National Bank of Poland (1998–2004). Since the end of 1980s, he has been involved in policy advising and policy research in Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Egypt, Georgia, Iraq, Kazakhstan, Kyrgyzstan, Macedonia, Moldova, Mongolia, Montenegro, Poland, Romania, Russia, Saudi Arabia, Serbia, Syria, Turkmenistan, Ukraine, Uzbekistan, and Yemen, and in a number of international research projects related to monetary and fiscal policies, growth and poverty, currency crises, international financial architecture, perspectives of European integration, European Neighbourhood Policy, and the political economy of transition. He has also worked as a consultant on a number of EU, World Bank, IMF, UNDP, OECD, and USAID projects. He was a Fellow under the 2014–2015 Fellowship Initiative of the European Commission – Directorate General for Economic and Financial Affairs, the author of several academic and policy papers, and an editor of several book publications.

Abstract

Twenty years of euro history confirms the euro's stability and position as the second global currency. It also enjoys the support of majority of the euro area population and is seen as a good thing for the European Union. The European Central Bank has been successful in keeping inflation at a low level. However, the European debt and financial crisis in the 2010s created a need for deep institutional reform and this task remains unfinished.

Executive Summary

- The road to the European currency took more than 20 years from the first memorandum of the European Commission on this topic in 1969 and the Werner Report in 1970, to signing the Maastricht Treaty in 1992. It took nearly 30 years until the euro was launched on 1 January 1999. This road was not easy. The collapse of the Bretton Woods system in 1971, two oil price shocks in the 1970s and the resulting stagflation delayed political approval of the project by more than a decade. Then the crisis of the European Monetary System in 1992–1993 complicated Stage 1 of the preparatory phase.
- The first two decades of euro functioning confirmed its stability, its role as the second most important global currency, and the ability of the European Central Bank (ECB) to keep inflation low. The euro enjoys the support of the majority of the euro area population and is seen as a good thing for the European Union (EU).
- In most of its first decade (1999–2008), the European economy enjoyed high growth and macroeconomic and financial stability. This changed, however, in the second decade (2009–2018) when the global and European financial crises hit the European economy. The monetary response of the ECB was largely adequate – the euro area managed to resist deflationary pressure coming from a far-reaching financial disintermediation. However, countries which suffered from a sovereign debt or banking crisis (or both) had to resist market pressures on their exit from the euro area. Greece, which experienced the longest and most painful crisis, found itself on the verge of leaving the euro area in July 2015, which was eventually avoided by the third rescue package provided by the European Stability Mechanism (ESM).
- All crisis-affected countries that lost market access received a conditional bailout provided by other euro area countries and the International Monetary Fund, with the support of the ECB. This meant, however, circumventing a no-bailout clause in the Treaty on the Functioning of the European Union. The content of rescue packages and how they were delivered remains a subject of political, economic and legal controversy until now.
- The crisis experience triggered a series of institutional reforms in the EU and euro area. They included, among others, strengthening the Stability and Growth Pact (SGP) and adopting the Fiscal Compact, introducing national fiscal rules, launching the Macroeconomic Imbalance Procedure and European Semester, setting up the ESM and Banking Union (without the European Deposit Insurance System (EDIS), which is still a subject of political discussion).

- The reform of the euro area needs to continue. The reform agenda was elaborated in the Five Presidents Report in 2015. However, there is a lack of consensus with respect to several proposals, for example, the degree of further fiscal and political integration, debt mutualization, the euro area budget, financial instruments which could cushion asymmetric shocks, etc.
- Given the high level of public debt in several euro area countries and the fiscal roots of most crisis episodes, strengthening fiscal discipline is the most important task. This can be done by restoring the no-bailout clause (market discipline) on the one hand and simplifying the SGP on the other.
- The EU member states that remain outside the euro area should consider euro adoption in the not-so-distant future. This would make the EU more homogenous economically and politically and help avoid institutional problems related to multi-speed integration.

1. Introduction

1 January 2019 marked the 20th anniversary of the launch of the European Union (EU)'s common currency – the euro (EUR), after almost three decades of political and academic debate and preparatory work. It constituted a major step forward in the process of economic and political integration in Europe. After the first relatively tranquil decade, the beginning of the second decade brought with it a series of strains and institutional challenges, which originated first from the global financial crisis of 2007–2009 and then from the series of debt and financial crises in the Euro area (EA) periphery. The sovereign debt and financial crisis in Greece in 2010–2016 proved the most dramatic case in this series – the country was on the verge of exiting from the common currency area in the summer of 2015.

Since 2010, under pressure from the crises, EA countries started reforms aimed both at resolving the ongoing crises and increasing resilience against future turbulences. These measures involved the creation of common rescue funds, which provided financial aid to countries in trouble, under the condition that they conduct their respective macroeconomic adjustments and structural and institutional reforms. The EA countries also strengthened fiscal discipline at the national level, adopted a common monitoring framework of macroeconomic and structural policies, and created a Banking Union (BU). However, towards the end of the second decade when the macroeconomic situation improved and economic growth resumed, the political appetite for continuing those reforms faded. For example, the BU, the most important piece of reforms adopted in the 2010s remains unfinished because of the lack of consensus on how the European Deposit Insurance Scheme (EDIS) should be designed (see Schoenmaker, 2018).

Overall, despite the crisis-related shocks in the first half of the 2010s, the common currency project proved successful. The Euro (EUR) is the second most important global currency, after the US dollar (USD). It has a largely stable exchange rate against other major currencies and annual inflation in the EA has not exceeded the targeted 2% for most of its life time. However, looking ahead, there are at least three challenges which should be addressed. First, the reform of the EA should be continued in order to increase its resilience against future potential shocks. Second, the international role of the Euro should be increased; this question was raised in the second half of 2018 by the European Commission. Third, nine EU members states remain outside the EA (the so-called "outs") even if seven of them accepted the legal obligation to adopt the common currency when they joined the EU. This creates various economic and political problems, including the phenomenon of multi-speed integration. Again, since 2017, the European Commission (EC) initiated the policy of encouraging the "outs" to join the EA once they are economically and politically ready.

The purpose of this paper is to summarise the history of the Euro project and its implementation, review its main accomplishments and unsolved problems and discuss the direction of its further evolution in the subsequent decades of its existence.[1]

The paper's structure is as follows. In Section 2, we present a brief history and theoretical background of the common currency project and its implementation both before its launch in 1999 and in the first two decades of its functioning. In Section 3, we analyse the macroeconomic performance of the EA in terms of exchange rate stability, inflation and its role as a reserve currency, growth and unemployment, fiscal indicators as well as the attitude of EU citizens towards the common currency. In Section 4, we discuss potential directions of the EA reform, including the perspectives for EA enlargement.

Our analysis has a narrative character and is based largely on a literature review and supported by statistical presentations.

1 This is a revised version of the briefing paper under the same title, which was prepared on the request of the European Parliament's Committee on Economic and Monetary Affairs ahead of the European Parliament's Monetary Dialogue with the President of the European Central Bank on 28.01.2019 – http://www.europarl.europa.eu/committees/en/econ/monetary-dialogue.html. The opinions expressed in this paper are the sole responsibility of the author and do not necessarily represent the official position of the European Parliament, CASE, or other institutions of which the author is associated. The author would like to thank Paulina Szyrmer for her editorial assistance.

2. History of the common currency project and its implementation

In this section we present a brief history of the Euro project, including its historical roots and theoretical background (Subsection 2.1), the road to the EMU (Subsection 2.2), the preparatory phase in the 1990s (Subsection 2.3), and the first two decades of its functioning divided into two subperiods: 1999–2008 (Subsection 2.4) and 2009–2018 (Subsection 2.5)

2.1. Historical and theoretic background

The history of monetary unions2 of largely sovereign states in Europe preceded the post-WWII projects of political and economic integration that led to the birth of the EEC in 1957 and then the EU in 1993. It goes back to the 19th century when three monetary unions existed in Europe: the German Monetary Union (prior to German political unification in 1871), the Latin Monetary Union (1865–WWI, formally until 1927), the Scandinavian Monetary Union (1873–WWI). The German Monetary Union was gradually created in the 1830s and 1840s and was preceded by a customs union (*Zollverein*) since 1834 (James, 1997).

Due to the technical specifications of monetary systems based on metallic standards, the 19th century unions were concentrated on the unification of the gold and silver content of national coins and their free circulation across unions' member states (Cohen, 2008).

The gold standard, which dominated the world economy since the 1860s until WWI and then, in a modified form, until the Great Depression of 1929–1933, can also be considered a looser form of a monetary union (a system of permanently locked exchange rates to gold).

In the 20th century, the Belgium-Luxembourg Economic Union (BLEU) which had a common currency (the franc) and existed between 1922 and 1998, can be considered a successful example of monetary unification, albeit on a geographically smaller scale. After 1998, the franc was replaced by the Euro.

The modern intellectual background of monetary unification was provided by the optimum currency area (OCA) theory, first elaborated by Mundell (1961) and then further developed by McKinnon (1963) and other scholars. The original OCA theory tried to balance the advantages of stable ex-

2 For various definitions of monetary unions see Dabrowski (2015a).

change rates (lower cross-border transaction costs) against the disadvantages coming from giving up an exchange rate adjustment tool in the case of an asymmetric shock.

Consequently, the OCA was to be the area that would be unlikely to suffer from shocks due to its internal synchronisation of the business cycle. Alternatively, if an asymmetric supply-side shock happened anyway, it could be absorbed by either factor mobility (of labour and capital) or by fiscal transfers within the OCA.

The OCA theory arose at a time when the Bretton Woods system of fixed-but-adjustable exchange rates, indirectly linked to the gold parity via the USD started to experience increasing strains. The inconsistency of national fiscal and monetary policies, especially in the US, the central country of this system, with its established pegs was a major cause of these tensions. Furthermore, activist monetary policy and free capital movement were inconsistent with fixed exchange rates – the principle of the "impossible trinity" (see e.g. Frankel, 1999) or the "macroeconomic trilemma" (see e.g. Obstfeld et al, 2004), both based on the Mundell (1963) – Flemming (1962) model of an open economy.

Because economic policies in the post-WWII period referred predominantly to the Keynesian school, they were based on the assumption of sticky prices and wages (at least in the short-term) and, therefore, they preferred to use monetary and fiscal policies in business cycle management and adjustment to shocks. This led to an interpretation of the OCA theory in favour of exchange rate flexibility rather than monetary unification.

However, three important arguments were missed in this early debate. First, many existing national states with single currencies did not constitute OCA according to Mundell (1961) and McKinnon's (1963) criteria but nobody suggested their monetary fragmentation. Second, once established, a monetary union may help in the internal harmonization of economic policies and synchronisation of business cycles, i.e., it leads to the endogenization of the OCA criteria (Frankel and Rose, 1998). Third, for countries that face historical legacies of monetary instability and high inflation, and therefore, limited public trust in their currencies, joining a monetary union provides an opportunity to overcome these problems at a relatively low cost by importing credibility from the outside.

Interestingly, Mundell in his later publications (1973a, 1973b, 1997) supported the euro project, referring to some of the above-mentioned arguments.

Nevertheless, the idea of a monetary union in Europe has been always controversial in academic circles, both in the period of its formation (late 1980s and 1990s) and during its actual functioning, especially when the debt and financial crisis hit the EA periphery between 2010 and 2016. Critiques of the single currency have come both from representatives of the Keynesian school (e.g., Paul Krugman, 2011) and the monetarist school (e.g., Friedman, 1997). However, a review of this debate remains beyond the scope of this paper.

2.2. From the Werner Report to the Maastricht Treaty (1969–1992)

The first initiatives towards a single currency in the European Economic Community (EEC) go back to 1969 when the European Commission (1969) produced a memorandum *on the co-ordination of economic policies and monetary co-operation within the Community. It was followed by a decision at the EEC summit in The Hague that same year to build the Economic and Monetary Union (EMU). In response to the Council's request, a group of experts, led by the Prime Minister and Minister of Finance of Luxembourg, Pierre Werner, elaborated the first plan in 1970, according to which the EMU was to be built in stages through the end of the 1970s*[3].

However, the collapse of the Bretton Woods system in 1971 followed by a series of macroeconomic turbulences and magnified additionally by two oil shocks (in 1973 and 1978) delayed the implementation of the EMU project by almost two decades. In the meantime, EEC member states tried to undertake partial coordination of monetary policies. First, in 1972, they established the "snake in the tunnel", a mechanism of limited managed floating of their currencies against each other. Then, at the Brussels 1978 summit, they implemented the European Monetary System (EMS) based on a mechanism of fixed-by-adjustable exchange rates, similar to the Bretton Woods system (see Muorlon-Druol, 2017). This mechanism was called the Exchange Rate Mechanism (ERM1). Simultaneously, the same EEC summit in Brussels created the European unit of account (ECU), the predecessor of the Euro.

After adopting the Single Market program in 1985, interest in building the EMU came back. Although in political and legal terms the common currency constituted a separate integration component from the Single Market, in economic terms, it was a logical continuation of the former. The elimination of cross-border barriers to the free movement of goods, services, capital and people cannot be complete when each member state has its own currency, some with floating exchange rates (see European Commission, 1990).

The first step in the new round was taken at the Hannover EEC summit in June 1988, which confirmed the goal of building the EMU and asked the Committee chaired by the European Commission President Jacques Delors to produce a report that would propose the concrete steps to achieve that goal. The Delors Report (Committee, 1989) presented in April 1989 was subsequently approved at the EEC summit in Madrid in June 1989. At this summit, it was also decided to take the first concrete step towards monetary and financial integration, that is, to abolish the remaining restrictions on capital movement by 1 July 1990.

At the next EEC summit in Strasbourg in December 1989, policymakers decided to call the Inter-Governmental Conference to negotiate the respective Treaty changes. This resulted in drafting a new Treaty on the European Union, accepted by the EEC summit in Maastricht in December 1991 and formally signed on 7 February 1992.

3 This subsection draws from the official historical sheets of the European Parliament – see http://www.europarl.europa.eu/factsheets/en/sheet/79/history-of-economic-and-monetary-union.

2.3. Preparation phase (1993–1998)

The smooth negotiation and approval of the EMU blueprint was possible due to the strong political partnership between the President of France, François Mitterrand, and German Chancellor Helmut Kohl (Mourlon-Druol, 2017). Geopolitical changes in Europe – the demise of the Soviet bloc, the reunification of Germany and the disintegration of the Soviet Union itself – also helped this process.

However, the ratification of the Maastricht Treaty did not go smoothly in some countries. The first ratification referendum in Denmark on 2 June 1992 was narrowly lost. This led to granting this country an opt-out provision from adopting a common currency (similar to the UK, which received such an option at the time of negotiating the Maastricht Treaty). The second referendum in May 1993 approved the treaty changes. A similar referendum in France in September 1993 was only narrowly won (50.8%). In the UK, the treaty was ratified by only a very narrow majority in the Parliament.

In addition to political troubles or perhaps partly as a result of them, in 1992–1993, the EMS was exposed to a series of speculative attacks (see Buiter et al., for their overview). They resulted in the devaluation of the British pound and the Italian lira (see Demertzis et al., 2017) in September 1992 and their withdrawal from the ERM1. In the subsequent months, Spain, Portugal and Ireland also had to devalue their currencies and the three Scandinavian countries (Finland, Norway and Sweden) had to abandon their unilateral pegs to the ECU (in the case of Finland and Sweden, the consequences of their domestic financial crises in the early 1990s also played an important role). The French franc was also subject to several rounds of speculative pressures. Eventually, in August 1993, the ERM1 fluctuation bands were broadened from +/-2.25% to +/- 15% against central parity.

Struggling with the ERM1 crisis consumed most of the remaining Stage 1 time of the EMU implementation timetable (ending, according to the Maastricht Treaty, on 31 December 1993). This was a serious blow to the credibility of the EMS and the perspectives for a common currency project. Many commentators, in particular, those who were not enthusiasts of the EMU, saw it as its end.

On the other hand, many economists interpreted this crisis as an empirical confirmation of the "impossible trinity" (see Subsection 2.1) and the unsustainability of the so-called intermediate or hybrid exchange rate regimes under which authorities try to manage simultaneously both money supply (or interest rates) and the exchange rate, in a world of unrestricted capital movement (see Eichengreen and Wyplosz, 1993; Obstfeld and Rogoff, 1995). Going towards a common currency (one of the forms of the so-called hard peg) should have eliminated this vulnerability.

Stage 2 of EMU implementation (1 January 1994 to 31 December 1998) happened under more tranquil and orderly economic circumstances. This period brought several important institutional and policy steps in preparation for launching the common currency[4]:

- Establishing the European Monetary Institute (EMI) on 1 January 1994 based on the existing (since 1973) European Monetary Cooperation Fund (EMCF). The EMI was replaced by the European Central Bank (ECB) and the European System of Central Banks (ESCB) on 1 July 1998;

4 See, among others, https://www.ecb.europa.eu/ecb/history/emu/html/index.en.html.

- Introducing a ban on central bank credit to government and non-banking institutions/ companies;
- Adjusting the national central bank legislation to the requirement of the Maastricht Treaty;
- Adjusting national monetary and fiscal policies to meet the EMU accession criteria established by the Maastricht Treaty;
- Accepting the name of the new currency (EUR) in December 1995;
- Adopting the Stability and Growth Pact (SGP) by the European Council meeting in Amsterdam on 16–17 June 1997 aimed at strengthening fiscal discipline on the national level;
- Selection of 11 original members of the EMU (Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain) which were to adopt the Euro as of 1 January 1999 by the European Council in Brussels on 3 May 1998;
- Fixing irrevocable exchange rates between national currencies and EUR.

2.4. The first decade (1999–2008)

On 1 January 1999 the new currency was launched along with the single ECB monetary policy and the SGP entered into force. The new ERM2 mechanism was also launched which served as a two-year trial period before the adoption of the Euro.

However, the monetary union was not complete in the first three years of its existence because there were no Euro banknotes and coins. Therefore, all cash operations had to be conducted in old national banknotes and coins. Together with the continued quotation of prices and wages in national currencies (parallel to quoting in EUR) not much changed in the daily perception of the population and other cash users. This change came three years later (since 1 January 2002) when EUR banknotes and coins replaced the remnants of national currencies.

In the first decade of its functioning, the number of EMU members increased from the original 11 to 15 after admitting Greece (1 January 2001, probably the most controversial accession decision given Greece's chronic fiscal imbalances and the poor quality of its fiscal statistics), Slovenia (1 January 2007), Cyprus and Malta (both on 1 January 2008). In addition, two countries outside the EU unilaterally adopted the EUR as their national currencies: Montenegro (November 1999) and Kosovo (January 2002). The EUR is also used in four European microstates – Andorra, Monaco, San Marino and the Vatican and in some overseas and dependent territories of the EU member states.

The ECB monetary policy was run smoothly, drawing on the credibility, track record, and operational experience of the German Federal Bank (Bundesbank), institutionally the strongest central bank in the EU before launching the euro, and the issuer of the EMS anchor currency (German Mark).

The primary objective of the ECB has been to maintain price stability, which has been operationalized by the ECB Governing Council as maintaining "*...inflation below, but close to, 2% over the medium term*" (ECB 2011, p.7). In its monetary policy decisions, the ECB has followed the stability-oriented two-pillar strategy based on economic and monetary analysis (ECB 2011, p. 69–72), which differs from

both traditional monetary targeting and direct inflation targeting frameworks but draws from the experience of both[5].

In the first decade, the ECB interest rate for main refinancing operations (MRO) varied between 2.00% and 4.75% with the lowest level of 2.00% in the period between 6 June 2003 and 6 December 2005 and the highest level of 4.75% in the short period between 6 October 2000 and 11 May 2001[6].

The actual inflation exceeded the 2% maximum inflation target through most of the examined period (see Subsection 3.1) but the economy grew at a relatively high pace (see Subsection 3.2). Both trends reflected the period of economic boom in the world economy, especially between 2003 and 2007, which preceded the global financial crisis of 2007–2009 (see Dabrowski, 2018).

However, there were some warnings, especially towards the end of the first decade, which signalled the possibility of later troubles.

First, fiscal discipline in most EMU member states remained weak, and both the Maastricht Treaty and SGP criteria were not observed (see Subsection 3.3). This included the two largest member states – France and Germany – which successfully pushed for the relaxation of the SGP rules in 2005. As a result, most of EA did not built sufficient counter-cyclical fiscal buffers for the subsequent downturn period (Dabrowski, 2015a).

Second, due to weak banking prudential regulations, the banking system in the EA and EU became "infected" by imprudent practices and instruments originating from the US housing market and US financial sector, which eventually led to banking crises in several EU member states (see Subsection 2.5).

Third, the successful introduction of the EUR led to a substantial decrease in nominal interest rates in peripheral EA countries which, in many instances, became negative in real terms. This led to local credit booms and housing bubbles in countries such as Spain, Ireland, Cyprus, Slovenia and others (similar to the US) that busted once the global financial crisis started.

The last year of the first decade (2008) was already marked by the global financial crisis that started in the US subprime mortgage market in the summer of 2007. Although this crisis reached Europe with some time-lag, in the second half of 2008 all EA economies were already suffering from a recession and serious tensions in the financial sector.

5 A focus on monetary conditions (second pillar) can be considered an advantage as compared to "pure" inflation targeters because it allows for detecting potential credit bubbles in their early stages (see Issing, 2003).

6 See https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.en.html.

2.5. The second decade (2009–2018)

Most of the second decade of the EUR functioning had to be devoted to adopting various anti-crisis measures and developing institutional changes aimed at increasing EA resilience in case of future turbulences.

The second decade started in the aftermath of the global financial shock caused by the Lehman Brothers collapse on 15 September 2008, which hit Europe immediately. The ECB reacted with gradual cuts of MRO interest rates – from 4.25% in July 2008 to 1% in May 2009. Then after a short episode of hiking the MRO rate to 1.25% in April 2011 and to 1.50% in July 2011, it was cut again to 1.25% in November 2011 and then gradually down to 0.25% in November 2013 and further down to 0.05% in September 2014 and 0.00% in March 2016.

The ECB deposit facility interest rate became negative in June 2014 and since March 2016 it has amounted to -0.40%[7].

Apart from cutting interest rates, the ECB also used several "non-standard" measures aimed at addressing the consequences of the global financial crisis and then, since 2010, of the European sovereign debt and financial crisis. They both had an EA wide and country-specific character, for example, the Emergency Liquidity Assistance (ELA) in the case of Greece (Praet, 2016).

In January 2015, after its short-term interest rates hit the zero-level band (see above), the ECB launched large-scale quantitative easing operations (Constancio, 2015), which primarily targeted the sovereign debt market, due to an insufficient supply of commercial bonds and papers.

Overall, the ECB seemed to be successful in resisting deflationary trends originating from the post-crisis financial disintermediation and subsequent tightening of banking regulation. At the end of 2018 and beginning of 2019, the main challenge that the ECB faces is the "normalisation" of its monetary policy after a decade of using unconventional measures and very low interest rates (Dabrowski, 2018).

Apart from monetary shock, the global financial crisis of 2007–2009 led to banking crises in most EU and EMU member states. To resolve those crises, substantial budget injections were needed, which together with aggressive countercyclical fiscal policies and a recession led to a rapid increase in public debt in relation to GDP in several countries (see Subsection 3.3).

Laeven and Valencia (2012, Table A2) estimated gross and net direct fiscal costs of policy responses to systemic banking crises for the period 2007–11, which covered the first phase of the global financial crisis and the early part of the European financial crisis[8]. Gross direct fiscal outlays involve government expenditure for bank recapitalization and asset purchases. Net fiscal outlays are equal to the difference between gross outlays and amounts recovered.

The highest gross fiscal outlays were recorded in Ireland (40.7% of GDP), Greece (27.3% of GDP), the Netherlands (12.7% of GDP) and the UK (8.8% of GDP). However, in the Netherlands and the UK,

7 See https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.en.html.

8 The analysed time span left out the later stages of banking crises in Greece, Spain, Cyprus, Slovenia and Italy.

part of the government support was recovered, so the net outlays in the analysed period amounted to 5.6% and 6.6% of GDP, respectively.

As a result of mounting public debt and banking troubles (most frequently, a combination of both) several EMU countries had to ask for external assistance – usually provided by the "Troika", that is, the International Monetary Fund (IMF), European Commission and ECB. A series of crises started from Greece (May 2010) and then involved Ireland (November 2010), Portugal (April 2011), Spain (June 2012) and Cyprus (June 2012). Italy (2011–2012 and then again 2017–2018) and Slovenia (2013––2014) also experienced serious problems in their banking sectors (both) and in serving its public debt (Italy) but avoided external assistance.

The Greek crisis was the longest and most painful. It lasted more than 8 years: Greece successfully ended the last aid program in August 2018. In the summer of 2015, it was on the verge of leaving the EA. At the very last minute, the government of Prime Minister Alexis Tsipras, which played with the idea of Grexit in the first half of 2015 and took a confrontational approach to "Troika", and a substantial part of Greek society reflected on the devastating consequences that such an exit would have for the country and they returned to the negotiating table (see Dabrowski, 2015b; Darvas and Wolff, 2015). This was probably the most dramatic test of sustainability of a common currency.

In the initial phase of the crisis, there were a lot of financial market speculations on the perspective of leaving the EA by countries in trouble. In principle, there were two misconceptions behind those speculations. The first was that sovereign default was considered equivalent to leaving the EA. The second misconception considered an exit from the common currency area as another form of ordinary devaluation. However, over time, markets learned that the construction of the EMU was much stronger than any exchange-rate arrangement (like the ERM1) in the past or even a currency board (for example Argentina which was forced to leave the currency board in 2002) and speculations gradually stopped. On 26 July 2012, ECB Governor Mario Draghi famously declared that within its mandate "*...the ECB is ready to do whatever it takes to preserve the euro.*"[9] This also contributed to making markets less nervous.

Despite internal troubles the EMU admitted four new members: Slovakia (1 January 2009), Estonia (1 January 2011), Latvia (1 January 2014) and Lithuania (1 January 2015).

The ongoing crisis encouraged the EU governing bodies and EU member states to undertake several reform steps. They included, among others, the so-called Six-Pack legislation, which strengthened the SGP, obliged member states to establish national fiscal rules and initiated the Macroeconomic Imbalance Procedure (MIP) (in force since December 2011) and Two-Pack legislation (May 2013), the European Semester (operational since November 2010), the European Financial Stability Facility (EFSF, operational since June 2010) and the European Stability Mechanism (ESM, operational since October 2012), the Treaty on Stability, Coordination and Governance in the EMU (the so-called Fiscal Compact, in force since January 1, 2013), and the Banking Union (2013).

9 https://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html.

The future-oriented debate on the new EMU institutional architecture initiated in this period led to the publication of the so-called Five-Presidents Report (Juncker et al., 2015). However, the implementation of this blueprint is going slowly. There is still a lot of intellectual and political disagreement on the direction in which the EMU reform should go. We will return to this question in Section 4.

The flagship reform of the 2010s, the Banking Union, remains unfinished because of the lack of consensus on how the EDIS should be designed (Schoenmaker, 2018). The main concerns relate to high banks' exposure to sovereign debt in some countries, the varied quality of this debt and the high-level of non-performing loans (Stark, 2018).

The MIP procedure does not work in practice and both its conceptual foundations and practical implementation raise various doubts (Dabrowski, 2015a). Despite its strengthening in 2011, the SGP is not observed by all member states (see Subsection 2.3). The European Semester does not play the expected role in peer-review and guiding countries' fiscal, macroeconomic and structural policies (Efstathiou and Wolff, 2018).

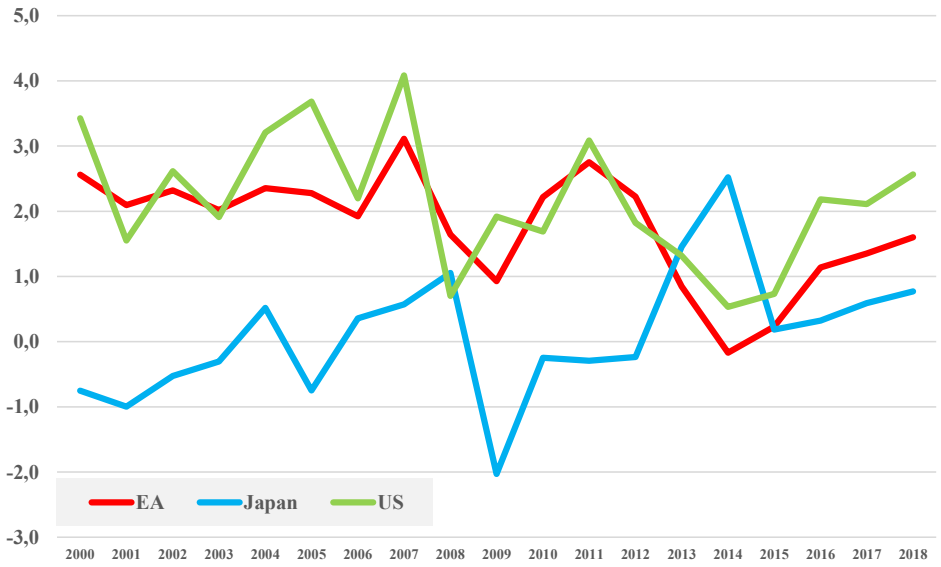
3. EA performance in its first twenty years

This section summarizes the macroeconomic performance of the EA since the launch of the common currency project in 1999, the international role of the EUR and the attitude of EU/EA citizens to a common currency. In subsection 3.1 we analyse inflation performance, the EUR-to-USD exchange rate and the role of the EUR as the second most important reserve currency. Subsection 3.2 includes an analysis of GDP and unemployment and Subsection 3.3 includes an analysis of fiscal indicators. Subsection 3.4 presents the attitudes of EU/EA citizens to a common currency.

3.1. Inflation, exchange rate and the share in global official reserves

Figure 1 presents the end-of year inflation in the EA in comparison with the US and Japan, for the period of 2000–2018. For most of the examined period, except for 2001, 2003, 2008, 2010, and 2012, the EA had lower inflation than the US. However, until 2012, the EA inflation rate frequently exceeded 2% (the upper inflation target of the ECB). This occurred in 2000–2002, 2004–2005, 2007, and 2010–2012. In several years (2000, 2002, 2004–2007, 2011, and 2016–2017), US inflation also exceeded 2%, the official inflation target of the Federal Reserve System since 2012. Furthermore, US inflation performance has been slightly more volatile as compared to the EA, especially in the period preceding the global financial crisis.

Figure 1: Inflation, end of period, 2000–2023 (in %)

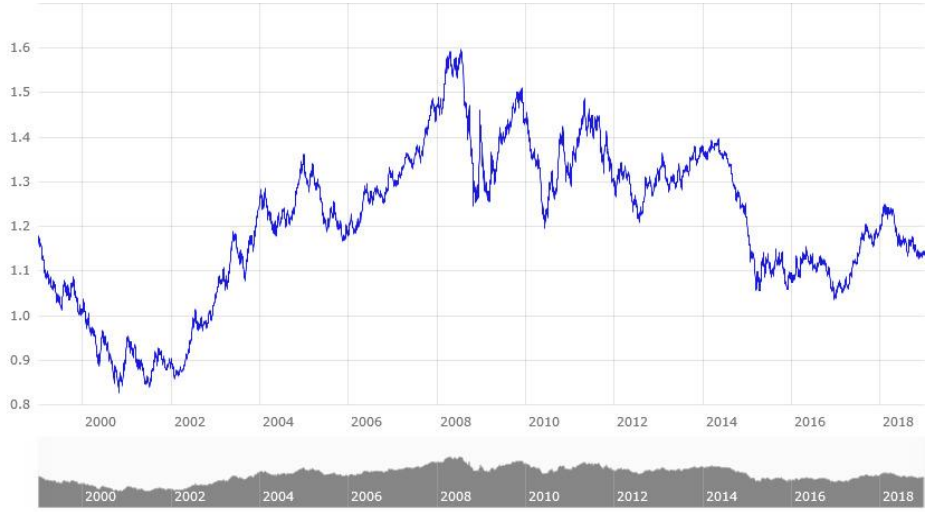


Note: *data for 2018 based on the IMF staff estimate.*
Source: *IMF World Economic Outlook database, April 2018.*

On the other hand, Japanese inflation was the most volatile among the three analysed currency areas and was systematically lower than in the EA and US, except for a short episode in 2014. During several years (2000–2003, 2005, and 2009–2012), it was even negative. Since 2000, the US has not recorded a negative inflation rate, and the EA–only once in 2014 (-0.2%). This means that the fear of deflation so prevalent in the economic debates of both the early 2000s and the early 2010s was not well grounded.

Figure 2 shows the EUR exchange rate against the USD. Between 1999 and 2018, it fluctuated in the range of 0.8 USD to 1.6 USD for 1 EUR, which reflected a divergence in business cycles and monetary policy cycles in the US and EA. The weakest exchange rate of the EUR (below 1 USD for 1 EUR) was recorded between 2000 and 2003, and the strongest was recorded just before the global financial crisis (2006–2008). Since 2015, the fluctuation band has narrowed and the exchange rate has been oscillating around 1.10-1.2o USD for 1 EUR. Interestingly, in the period of the debt and financial crisis in the EA periphery, the EUR remained relatively strong – between 1.2o to 1.50 USD for 1 EUR. This means the credibility of the EUR was never questioned by financial markets despite speculations that countries in trouble may exit the common currency area.

Figure 2: Exchange rate of EUR against USD, 1999–2018, in USD per 1 EUR

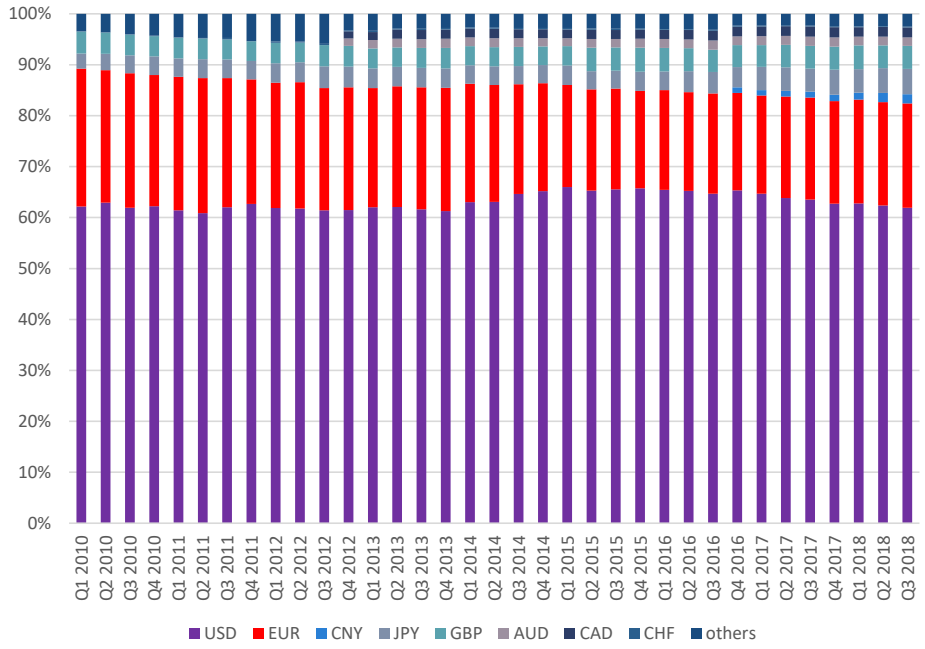


Source: *ECB.*

Figure 3 presents the composition of the global official foreign exchange reserves by major currencies. The EUR occupies the second position after the USD and is well ahead other currencies. However, its share did not increase in the reported period (2010–2018). It fluctuates in the range of 20–20% of total allocated reserves depending on changes in its exchange rate (in the beginning of the 2010s it was higher because of a stronger exchange rate).

Central banks' demand for reserve currencies are determined mainly by private sector transactions and their needs and preferences. In turn, the latter depend on the so-called network externalities and depth of financial markets in a given currency and the liquidity and sophistication of available financial instruments. In this respect, due to the unfinished process of building a Banking Union and Capital Market Union, the EA remains behind the USD currency area. Therefore, changing this situation and increasing the international role of the EUR as declared in the State of the Union address to the European Parliament in September 2018 will take time and will require a coordinated effort in many policy fields (see Efstathiou and Papadia, 2018)

Figure 3: Currency composition of official exchange rate reserves, 2010–2018, in % of total allocated reserves



Source: *IMF COFER (as of 13 January 2019).*

3.2. GDP growth and unemployment

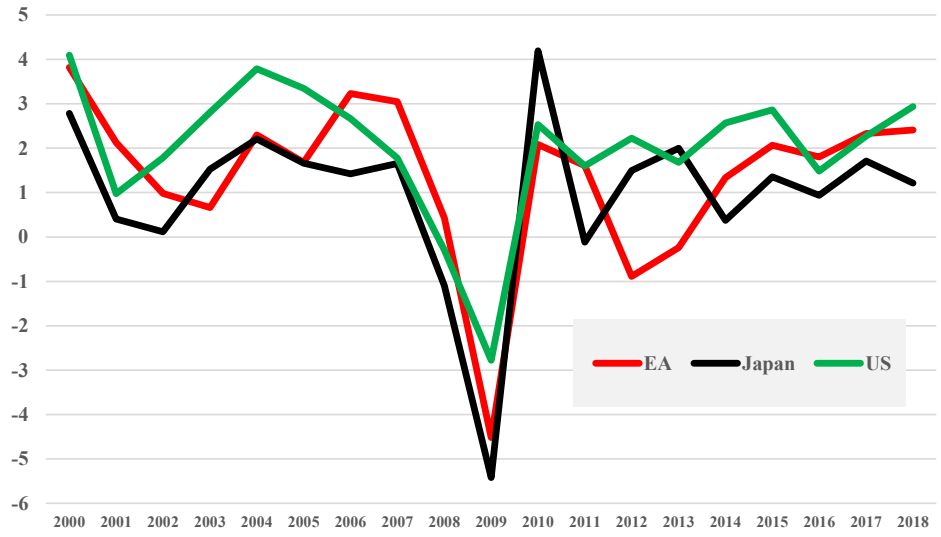
Figures 4–5 present the annual changes in real GDP and unemployment rates in the US, the EA, and Japan for the period of 2000–2018.[10]

Regarding GDP dynamics, Figure 4 clearly shows that the three largest advanced economies have not been leaders in terms of the world's economic growth (in fact, they lost their leadership roles in the early 1990s). Global growth has been increasingly driven by the catch-up growth of emerging-market and developing economies before, during, and after the global financial crisis of 2007–2009.

The US outperformed the EA and Japan for most of the examined period, except for 2001 (the dot-com recession and the shock which followed the 9/11 terrorist attack), 2006–2008, 2010, and 2016. Japan systematically underperformed, except for 2010 and 2013. The EA also underperformed, except for 2001, 2006–2008, and 2016; however, it performed better than Japan, except for 2003 and 2012–2013 (the peak of the EA financial crisis).

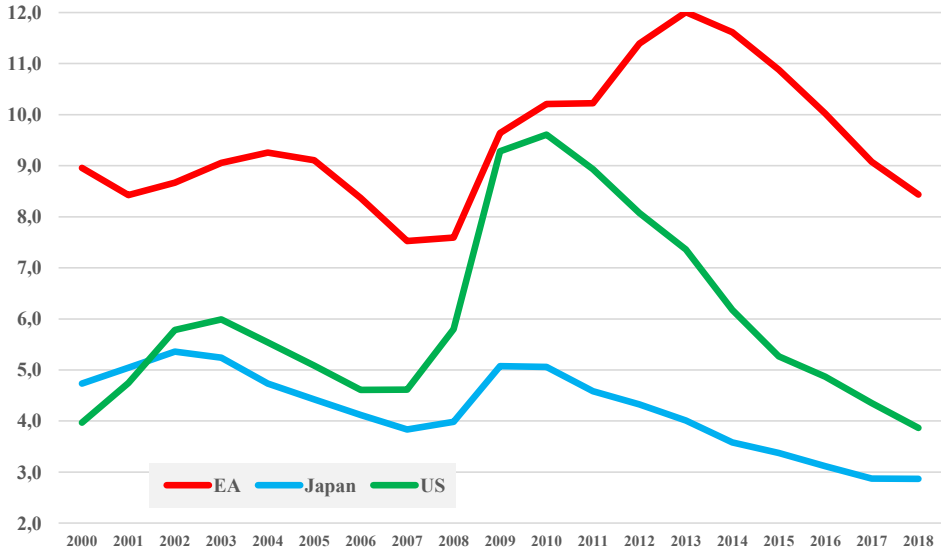
10 This subsection draws from Dabrowski (2018).

Figure 4: Annual change in GDP, constant prices, 2000–2018 (in %)



Note: *data for 2018 based on the IMF staff estimate.*
Source: *IMF World Economic Outlook database, April 2018.*

Figure 5: Unemployment rate, 2000–2018 (in % of total labour force)



Note: *data for 2018 based on the IMF staff estimate.*
Source: *IMF World Economic Outlook database, April 2018.*

Comparing the EA with the US, the former had two periods of lower growth–between 2002 and 2005 and between 2009 and 2015. In 2016–2017, the growth rates of both economies tended to converge.

A decade after the eruption of the global financial crisis, it is also clear that neither the EA, nor the US are going to return to their pre-crisis rates of growth, at least not in the near future. This is not only a consequence of the unhealthy character of the pre-crisis boom, which was based on several financial bubbles (see Dabrowski, 2010) and crisis-related wounds (for example, far-reaching financial deleveraging––see Subsection 3.1). It is also a result of changes in supply-side factors–not always necessarily in favour of faster growth. They include a decline in the working-age population (Europe and Japan), population aging, and the end of the main phase of the third industrial revolution based on the mass implementation of information and communication technologies, which caused slow growth in total factor productivity as compared to the second half of the 1990s and early 2000s (Gordon, 2016, pp. 601–602).

Figure 5 shows that the differences in the unemployment rates of the three analysed currency areas have a systematic character. Japan has had the lowest unemployment rates, despite also having the lowest inflation and growth rates. The US has also recorded relatively low unemployment rates, except for the post-crisis period of 2009–2012, but they are higher than those of Japan. The EA has had the highest level of unemployment. The differences in unemployment rates seem to be determined by the differences in the labour market institutions in individual economies.

3.3. Fiscal performance

Tables 1 and 2 present basic fiscal indicators – general government (GG) net lending/ borrowing (that is, GG balance) and gross debt, both in relation to GDP – for all EA countries and, for comparison, for the US, UK and Japan. Both tables cover the period of EUR functioning, that is, 1999–2018.

As seen in Table 1, all EA countries except Estonia did not observe the deficit criterion (max. 3% of GDP) for at least a few years, sometimes much longer as in the case of Greece, Portugal, France, Cyprus, Italy or Spain. There is little comfort in the fact that Japan, the UK and US are doing even worse.

Despite some improvement in current fiscal balances since 2015 and an ongoing economic boom, in several countries this is not enough to significantly decrease the debt-to-GDP ratio and create fiscal buffers for the future. One must remember that 2015–2018 were characterised not only by growth recovery (Figure 4) but also by record-low interest rates (see Subsection 2.5).

Table 2 shows that there is still a substantial number of EA countries in which GG gross debt exceeds the Maastricht limit of 60% of GDP. In 2018, seven countries recorded a very high debt level: Greece (188.1% of GDP), Italy (130.3% of GDP), Portugal (120.8% of GDP), Cyprus (112.3% of GDP), Belgium (101.1% of GDP), Spain (97.2% of GDP) and France (96.7%). Among previously highly-indebted countries, only Ireland and Germany managed to substantially reduce their debt-to-GDP levels.

This situation makes the EA vulnerable to any future shocks, especially in the case of growth deterioration, banking troubles, increase in market interest rates or political turbulence.

Table 1: General government net lending/borrowing, 1999–2018 (in % of GDP)

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	-2.6	-2.1	-0.7	-1.9	-1.4	-4.8	-2.5	-2.6	-1.4	-1.5	-5.4	-4.5	-2.6	-2.2	-2.0	-2.7	-1.0	-1.6	-0.7	-0.2
Belgium	-0.6	-0.1	0.2	0.0	-1.8	-0.2	-2.8	0.2	0.1	-1.1	-5.4	-4.0	-4.1	-4.2	-3.1	-3.1	-2.5	-2.5	-1.0	-1.2
Cyprus	-4.1	-2.2	-2.1	-4.1	-5.9	-3.7	-2.2	-1.0	3.2	0.9	-5.4	-4.7	-5.7	-5.6	-3.3	-0.2	-0.2	0.4	1.8	2.1
Estonia	-3.4	-0.1	0.2	0.4	1.8	2.4	1.1	2.9	2.7	-2.7	-2.2	0.2	1.2	-0.3	-0.2	0.7	0.1	-0.3	-0.3	-0.5
Finland	1.6	6.7	4.9	4.0	2.3	2.2	2.6	3.9	5.1	4.2	-2.5	-2.6	-1.0	-2.2	-2.6	-3.2	-2.8	-1.8	-0.6	-0.9
France	-1.6	-1.3	-1.4	-3.2	-4.0	-3.6	-3.4	-2.4	-2.6	-3.3	-7.2	-6.9	-5.2	-5.0	-4.1	-3.9	-3.6	-3.6	-2.6	-2.6
Germany	-1.7	0.9	-3.1	-3.9	-4.2	-3.7	-3.4	-1.7	0.2	-0.2	-3.2	-4.2	-1.0	0.0	-0.1	0.6	0.8	0.9	1.0	1.5
Greece	-5.8	-4.1	-5.5	-6.0	-7.8	-8.8	-6.2	-5.9	-6.7	-10.2	-15.1	-11.2	-10.3	-6.6	-3.6	-4.0	-2.8	0.7	1.1	0.5
Ireland	2.4	4.9	1.0	-0.5	0.4	1.3	1.6	2.8	0.3	-7.0	-13.8	-32.0	-12.8	-8.1	-6.1	-3.6	-1.9	-0.5	-0.3	-0.2
Italy	-1.8	-2.4	-3.4	-3.0	-3.3	-3.5	-4.1	-3.5	-1.5	-2.6	-5.2	-4.2	-3.7	-2.9	-2.9	-3.0	-2.6	-2.5	-2.3	-1.7
Latvia	-3.4	-2.5	-2.0	-2.5	-1.6	-1.0	-1.0	-0.5	0.6	-3.2	-7.0	-6.5	-3.2	0.2	-0.6	-1.7	-1.5	-0.4	-0.8	-1.2
Lithuania	-8.3	-4.0	-3.6	-1.8	-1.3	-1.5	-0.5	-0.4	-1.0	-3.3	-9.3	-6.9	-8.9	-3.1	-2.6	-0.7	-0.2	0.3	0.5	0.6
Luxembourg	3.7	5.9	5.9	2.4	0.2	-1.3	0.1	1.9	4.2	3.3	-0.7	-0.7	0.5	0.3	1.0	1.3	1.4	1.6	1.5	1.1
Malta	n/a	-5.8	-6.5	-5.7	-9.1	-4.4	-2.6	-2.5	-2.1	-4.2	-3.2	-2.4	-2.4	-3.5	-2.4	-1.8	-1.1	1.0	3.9	1.7
Netherlands	0.3	1.9	-0.3	-2.1	-3.0	-1.7	-0.3	0.2	0.2	0.2	-5.4	-4.9	-4.2	-3.8	-2.3	-2.2	-2.0	0.4	1.1	0.6
Portugal	-3.0	-3.4	-4.8	-3.8	-4.4	-6.1	-6.2	-4.2	-3.0	-3.8	-9.8	-11.2	-7.4	-5.7	-4.8	-7.1	-4.3	-2.0	-3.0	-0.7
Slovakia	-7.3	-12.0	-6.4	-8.1	-2.7	-2.3	-2.9	-3.6	-1.9	-2.4	-7.8	-7.5	-4.3	-4.3	-2.7	-2.7	-2.7	-2.2	-1.0	-0.7
Slovenia	-0.6	-1.2	-1.2	-1.4	-1.3	-1.3	-1.0	-0.8	0.3	-0.3	-5.4	-5.2	-5.5	-3.1	-13.8	-5.8	-3.3	-1.7	-0.8	0.2
Spain	-1.4	-1.1	-0.5	-0.4	-0.4	0.0	1.2	2.2	1.9	-4.4	-11.0	-9.4	-9.6	-10.5	-7.0	-6.0	-5.3	-4.5	-3.1	-2.7
Japan	-6.9	-8.3	-6.5	-7.9	-8.0	-5.9	-5.0	-3.5	-3.2	-4.5	-10.2	-9.5	-9.4	-8.6	-7.9	-5.6	-3.8	-3.7	-4.3	-3.7
UK	0.6	1.4	0.2	-1.9	-3.1	-3.1	-3.1	-2.8	-2.6	-5.2	-10.1	-9.3	-7.5	-7.6	-5.3	-5.4	-4.2	-2.9	-1.8	-2.0
US	n/a	n/a	-0.1	-3.3	-4.3	-3.9	-2.8	-1.7	-2.5	-6.3	-12.7	-10.6	-9.3	-7.6	-4.1	-3.7	-3.2	-3.9	-3.8	-4.7

Note: *red font indicates the IMF staff estimate.*
Source: *IMF World Economic Outlook database, April 2018.*

Table 2: General government gross debt, 1999–2018 (in % of GDP)

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	61.1	65.7	66.4	67.0	64.9	64.8	68.3	67.0	64.7	68.4	79.6	82.4	82.2	81.7	81.0	83.8	84.3	83.6	78.6	74.2
Belgium	114.4	108.8	107.6	104.7	101.1	96.5	94.7	91.1	87.0	92.5	99.5	99.7	102.6	104.3	105.5	107.0	106.1	106.0	103.4	101.2
Cyprus	55.7	56.0	57.5	61.0	63.0	64.7	64.0	59.0	53.1	44.1	52.8	55.8	65.2	79.2	102.1	107.5	107.5	106.6	97.5	112.3
Estonia	6.0	5.1	4.8	5.7	5.6	5.1	4.5	4.4	3.7	4.5	7.0	6.6	6.1	9.7	10.2	10.7	10.0	9.4	9.0	8.8
Finland	44.0	42.5	40.9	40.2	42.7	42.6	39.9	38.1	34.0	32.7	41.7	47.1	48.5	53.9	56.5	60.2	63.5	62.9	61.3	60.5
France	60.5	58.9	58.3	60.3	64.4	65.9	67.4	64.6	64.5	68.8	83.0	85.3	87.8	90.6	93.4	94.9	95.6	96.6	96.8	96.7
Germany	60.0	58.9	57.7	59.4	63.1	64.8	67.0	66.5	63.7	65.2	72.6	80.9	78.6	79.8	77.5	74.6	70.9	67.9	63.9	59.8
Greece	98.9	104.9	107.1	104.9	101.5	102.9	107.4	103.6	103.1	109.4	126.7	146.3	180.6	159.6	177.9	180.2	178.8	183.5	181.8	188.1
Ireland	46.6	36.1	33.2	30.6	29.9	28.2	26.1	23.6	23.9	42.4	61.5	86.0	110.9	119.9	119.8	104.3	76.9	73.6	68.6	66.6
Italy	109.7	105.1	104.7	101.9	100.5	100.1	101.9	102.6	99.8	102.4	112.5	115.4	116.5	123.4	129.0	131.8	131.5	132.0	131.8	130.3
Latvia	11.8	12.1	13.9	13.1	13.9	13.8	11.2	9.2	7.2	16.2	32.5	40.3	37.5	36.7	35.8	38.5	34.9	37.4	36.3	35.0
Lithuania	28.1	23.5	22.9	22.1	20.4	18.7	17.6	17.2	15.9	14.6	29.0	36.2	37.2	39.8	38.8	40.5	42.6	40.1	39.7	37.0
Luxembourg	7.1	6.5	6.9	6.8	6.8	7.3	7.4	7.8	7.7	14.9	15.7	19.8	18.7	21.7	23.7	22.7	22.0	20.8	23.0	22.8
Malta	69.5	64.2	70.1	64.9	68.7	71.1	70.0	64.5	62.3	62.6	67.6	67.5	70.1	67.7	68.4	63.7	58.6	56.3	50.7	45.1
Netherlands	57.5	50.9	48.2	47.5	48.7	49.1	48.5	44.1	42.0	53.8	55.8	58.6	60.8	65.5	67.0	67.1	64.0	61.3	56.5	53.1
Portugal	51.0	50.3	53.4	56.2	58.7	62.0	67.4	69.2	68.4	71.7	83.6	90.5	111.4	126.2	129.0	130.6	128.8	129.9	125.7	120.8
Slovakia	47.1	49.6	48.3	42.9	41.6	40.6	34.1	31.0	30.1	28.5	36.3	41.2	43.7	52.2	54.7	53.5	52.3	51.8	50.9	49.2
Slovenia	22.0	29.0	28.5	28.4	27.0	26.8	26.3	26.0	22.7	21.6	34.5	38.2	46.4	53.8	70.4	80.3	82.6	78.6	73.6	69.7
Spain	62.5	58.0	54.2	51.3	47.6	45.3	42.3	38.9	35.5	39.4	52.7	60.1	69.5	85.7	95.5	100.4	99.4	99.0	98.4	97.2
Japan	131.1	137.9	146.8	156.8	162.7	171.7	176.8	176.4	175.4	183.4	201.0	207.9	222.1	229.0	232.5	236.1	231.3	235.6	237.6	238.2
UK	39.8	37.0	34.3	34.4	35.6	38.6	39.8	40.7	41.7	49.7	63.7	75.2	80.8	84.1	85.2	87.0	87.9	87.9	87.5	87.4
US	n/a	n/a	53.2	55.6	58.7	66.2	65.6	64.3	64.8	73.8	86.9	95.5	99.9	103.3	104.9	104.6	104.8	106.8	105.2	106.1

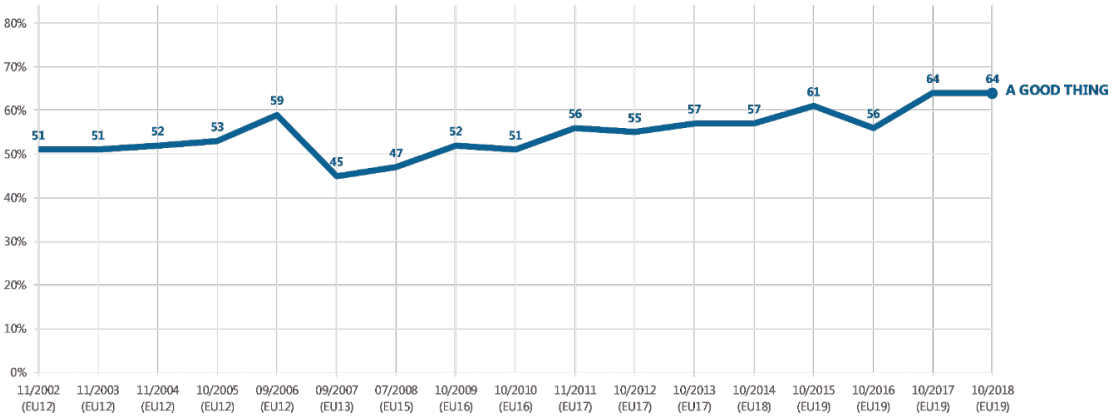
Note: *red font indicates the IMF staff estimate.*
Source: *IMF World Economic Outlook database, April 2018.*

3.4. Public attitude to common currency

Public attitudes to the EUR can either be measured by the results of opinion polls or analysed by the observation of microeconomic behaviour (portfolio choices). The first approach is represented, among others, by the European Commission's annual Eurobarometer surveys (see e.g. Eurobarometer, 2018), which provide comparable results of opinion polls for long periods of time.

Measuring support for the EUR as a home country currency started in 2002 when EUR cash was introduced into circulation. This support has remained relatively stable, above 50% (Figure 6). Only in 2007 was a substantial drop in support recorded. Since 2011, a period of debt and financial crisis on the EA periphery, support for the EUR has grown systematically, reaching 64% in 2017.

Figure 6: Support for the EUR as a home country currency, 2002–2018, in % of total number of respondents in the EA



Source: *https://ec.europa.eu/info/news/eurobarometer-2018-nov-20_en.*

Looking at the survey results by individual countries (Figure 7), a differentiation of support is obvious but not as dramatic as one might expect following national political discourses. In 2018, the highest support was recorded in Ireland (85%) followed by Luxembourg (80%) and Austria (76%). The lowest support (below 50%) was recorded in Cyprus (47%) and Lithuania (42%).

Interestingly, in Italy where two ruling political parties voiced a sceptical approach to EUR, public support for the common currency increased dramatically (by 12 percentage points) between 2017 and 2018. In countries which suffered from debt and financial crises just a few years earlier and whom many commentators and experts advised to leave the EA (Greece, Ireland, Portugal, Spain, Slovenia), support for the EUR remains high. Cyprus is the only post-crisis country where support is low.

Figure 8 presents support for the EUR as a potentially good thing for the entire EU. The time series is shorter (since 2010) but results look even better than in the case of the previous question. However, it is worth remembering that this question is more "abstract" for most respondents than the question related to their home countries.

Figure 7: Support for the EUR as home country currency, 2017–2018, in % of total number of respondents in each EA country

	A good thing	2018 - 2017	A bad thing	2018 - 2017	Can't decide (SPONTANEOUS)	2018 - 2017	Don't know
EURO AREA	64	=	25	=	7	=	4
BE	60	▲ 3	33	▲ 1	6	▼ 3	1
DE	70	▼ 6	21	▲ 5	7	▲ 2	2
EE	71	▲ 2	10	▼ 2	14	=	5
IE	85	=	8	▼ 1	5	▲ 2	2
EL	60	▲ 3	26	▼ 4	10	▲ 1	4
ES	62	▼ 3	27	▲ 4	6	=	5
FR	59	▼ 5	29	▲ 4	6	▲ 1	6
IT	57	▲12	30	▼10	11	▼ 1	2
CY	47	▼ 1	40	▲ 6	10	▼ 4	3
LV	63	▲10	19	▼ 6	12	▼ 1	6
LT	42	▲ 6	40	▼ 8	17	▲ 6	1
LU	80	▼ 2	17	▲ 2	2	▼ 1	1
MT	63	▼ 1	18	▲ 2	13	▲ 1	6
NL	69	▲ 1	21	▼ 2	6	=	4
AT	76	▲12	16	▼ 6	5	▼ 7	3
PT	64	▲ 4	24	▼ 2	7	▼ 3	5
SI	72	▲ 9	20	▼ 5	6	▼ 3	2
SK	68	▲ 1	20	▼ 1	9	=	3
FI	75	▲ 2	15	▲ 1	7	▼ 2	3

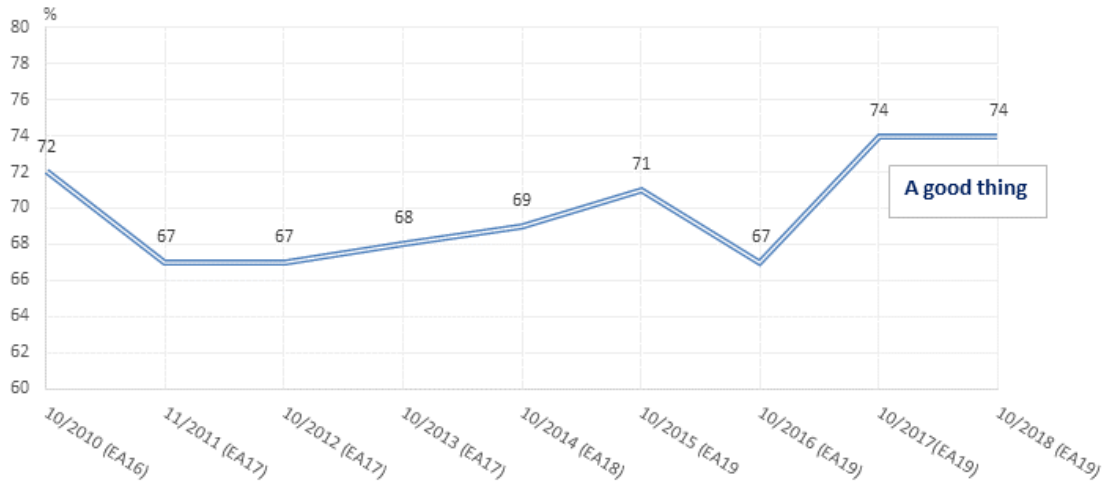
Base: all respondents (N=17,589)

Source: *Eurobarometer (2018), p.8.*

An analysis of microeconomic behaviour is even more interesting but not always easy to measure. And such behaviour quite often contradicts the expressed political and economic opinions. The near--Grexit in 2015 provided a very good example of that. The government, which brought the country to the verge of Grexit, enjoyed broad popularity (winning the referendum on 5 July 2015 against the bail-out proposed by "Troika"). Meanwhile, the same people who supported the government and its risky policy tried to protect their own money balances in EUR to avoid having to convert to a new national currency. They transferred money abroad, they hoarded EUR cash, etc. Thus, economically they voted to remain in the EA.

The same could be said about portfolio preferences. Use of currencies other than the EUR by economic agents and the population in EA countries remains marginal while the use of EUR (the phenomenon of spontaneous euroization) is substantial in most EU member states which have not adopted the EUR yet and EU candidates.

Figure 8: Support for using the EUR in the EU, 2010–2018, in % of total number of respondents in the EA



Source: *https://ec.europa.eu/info/news/eurobarometer-2018-nov-20_en.*

4. Looking ahead: how to reform the EMU?

This section deals with the question of how to reform the EMU in order to make it more efficient and resilient to potential future shocks. This is a complex topic and policy agenda and we concentrate on just a few key issues. First, we analyse whether a monetary union needs deeper fiscal and political integration as suggested by many participants of the debate on the future of EA (Subsection 4.1). This is followed by a discussion on what is the right way of deepening political and fiscal integration (Subsection 4.2). In Subsection 4.3 we try to find a way of strengthening fiscal discipline within the EMU (and entire EU). In our opinion, this is a key economic condition to increase EA resilience and decrease the risk of macroeconomic and financial turbulence in the future. Finally, Subsection 4.4 is devoted to perspectives of the EMU enlargement and the role of such enlargement in increasing the EU's economic, political and institutional homogeneity.

4.1. Does a monetary union need a deeper fiscal and political union?

As mentioned in Subsection 2.5, the debt and financial crisis on the EA periphery triggered a debate on the supposedly incomplete architecture of a monetary union within the EU (see Dabrowski, 2015a for an overview). However, the opinions on what should be done to increase the monetary union's resilience to adverse shocks differed substantially.[11]

The dominant view is that a monetary union must be accompanied by a fiscal and political union in order to survive. Perhaps surprisingly, this is the opinion of both supporters and opponents of the EUR project. However, while the former (e.g. De Grauwe, 2006; Wolff, 2012) believe this is both possible and desirable, the latter (e.g. Feldstein, 1997; 2012) doubt it will ever happen due to the long historical tradition of sovereign nation states in Europe.

Empirically, the US serves most frequently as the reference for this view (see, e.g., Bordo et al, 2011; Henning and Kessler, 2012; Gros, 2013), which might be justified by the similar size of economies, their global importance and the role of the US as the EU's major partner and competitor. However, such a comparison overlooks the historical process of the evolution of the US federation, which is much more centralized today than it was at the beginning of 20th century, not to mention the first half of the 19th century, including its monetary and fiscal dimensions (Frieden, 2016). It also disregards the other historical and contemporary experiences of monetary unions (see e.g., Cohen, 2008; Deo, Donovan & Hatheway, 2011; Dabrowski, 2015b), including those formed by sovereign states.

The two largest contemporary monetary unions outside Europe, the West African Economic Monetary Union and the Central African Economic and Monetary Community, have virtually no political and fiscal integration, their trade and economic integration are still in rather initial stages but they have used a common currency (the CFA franc) since 1945, i.e., for more than 70 years.

11 Subsections 4.1-4.3 draw from Dabrowski (2016).

The conclusions that can be drawn from this debate can be summarized as follows: while deeper fiscal and political integration (beyond what has been accomplished so far) is not critical for EMU survival, the OCA theory (see Subsection 2.1) suggests that greater factor mobility and some fiscal redistribution on a federal level can decrease adjustment costs in the case of asymmetric shocks. This underlines, once again, the importance of deepening the Single European Market, completing the Banking Union and Capital Market Union projects and liberalising the market on a national level, especially with respect to the labour market (Fuest and Peichl, 2012; Issing, 2013; Balcerowicz, 2014; Draghi, 2015).

However, looking at the historical experience of monetary unions in the 19th and 20th centuries and the role of political factors in both their creation and disintegration one can conclude that further deepening of political integration within the EU/ EMU (and resulting higher degree of fiscal integration) might be helpful in increasing the sustainability of the EA.

4.2. How to deepen a fiscal and political union?

When discussing the economic rationale for deeper political and fiscal integration, the *theory of fiscal federalism* should serve as primary guidance. This theory helps us understand "*which functions and instruments are best centralized and which are best placed in the sphere of decentralized levels of government*" (Oates, 1999, p.1120).

Therefore, a discussion about a deeper political integration should start from a functional analysis aimed at identifying those policy areas and public goods where the centralization of competences and resources could either offer increasing returns to scale or help address cross-border externalities[12]. As a result, any new area of integration (or closer integration in the policy fields already delegated to the EU/EMU level) should be justified by the potential benefits of pooling resources to carry out common policies and provide supranational public goods. This means that the potential benefits of greater centralization in any policy areas should outweigh its potential costs in the form of lower efficiency of centralized decision making and expenditure (as compared to decentralized), wrong policy incentives at the national level (risk of moral hazard and free riding) or a redistribution conflict between member states.

In its Preamble and Article 5, the TEU declares the principle of subsidiarity, which must serve as additional guidance in the debate on the EU integration architecture. According to this principle, the functions of higher levels of government should be as limited as possible and should be subsidiary to those of lower levels (Mortensen, 2004).

Unsurprisingly, looking at the challenges the EU currently faces, the strongest arguments in favour of a further transfer of competences and pooling resources at the Union level relate to non-economic

12 The examples of such analyses are provided by Berglof et al. (2003) and Wyplosz (2007; 2015).

spheres of governance such as external border protection, migration policy, asylum system, internal security, foreign policy, defence, environment protection, climate change policy, etc., although many of them also have their economic dimensions.

Increasing the degree of integration in the above-mentioned areas and delegating new mandates to the EU should result in an increase in the size of the EU budget. This, in turn, may gradually create more room for countercyclical fiscal policy at the EU level or federal transfers aimed at cushioning asymmetric shocks (which is what happened in the US in the first half of the 20th century). This is a more natural and politically acceptable way than the creation of a special redistribution fund for the EA as suggested by De Grauwe, 2006; Wolff, 2012; and Cottarelli, 2012b.

4.2. Fiscal sustainability challenge

4.2.1. Importance of fiscal discipline

Fiscal discipline is very important for currency stability (Wyplosz, 2013) and, more broadly, financial and macroeconomic stability in any country/ territorial entity. However, it becomes even more important within federations, confederations and closely integrated economic blocks, due to cross-border spill-overs and contagion, more opportunities to free ride at the cost of neighbours, and the moral hazard problem (the expectation of bailout). This was confirmed by the European debt and financial crisis in the first half of the 2010s (see Subsections 2.5 and 3.3), especially in the case of Greece. However, this was also the experience of those federal states that failed to ensure the fiscal discipline of their subnational governments. Countries such as Argentina, Brazil (see Bordo et al, 2011; Cottarelli, 2012b), Mexico, Russia and Spain, which provided their sub-national governments with bailouts, have suffered serious fiscal and monetary stability problems at the federal level.

Thus, fiscal discipline should be considered an important common public good for the entire EU, not only for the EA.

4.2.2. Market discipline vs. fiscal rules

Fiscal discipline may be ensured by market mechanisms (danger of sovereign default) and formal fiscal rules (formal constraints), or a combination of both. In turn, fiscal rules can be divided into fiscal targets and fiscal procedures, which are either imposed by a federal centre, self-imposed by a sub-federal entity, or negotiated by both (Eyraud and Gomez Sirera, 2013).

Historical experience demonstrates the superiority of market discipline: the credible danger of default serves as the strongest incentive to put sub-federal finances (in the case of the EU/EMU, those of member states) in order (Bordo et al, 2011; Henning and Kessler, 2012). For example, the US federal authorities have not bailed out any state since the 1840s and this has created a strong incentive for states to adopt fiscal discipline rules in their constitutions and secondary legislations (the federal government has imposed none of them). Similarly, counties and municipalities cannot expect a bailout

from either the state or the federal government. The similar 'no bailout' practice governs the Canadian and Swiss federations (Bordo et al, 2011; Cottarelli, 2012b).

In the EU/ EMU, the original mechanism of fiscal stability was based on both market discipline and fiscal rules. The former was built around the 'no bailout' clause in Article 125 of the Treaty on the Functioning of the European Union (TFEU) and the ban on debt monetization by the ECB Article 123 of the TFEU. On other hand, Article 126 of the TFEU, the accompanying Protocol No. 12 and the EU's secondary legislation, i.e., the SGP determined fiscal rules. They included numeric criteria on the maximum annual fiscal deficit (3% of GDP) and gross public debt level (60% of GDP), the so-called Maastricht criteria, backed by administrative and financial sanctions for breaching them within the Excessive Deficit Procedure (EDP). After 2010, those fiscal rules were further amended and strengthened (see Subsection 2.5).

However, as seen in our analysis in Subsection 3.3 the EU/EMU fiscal discipline mechanism does not work well. Financial markets have never taken the 'no bailout' clause seriously, as demonstrated by very low yield spreads prior to the global financial crisis and since 2013, in spite of big differences in the fiscal positions of individual countries. It was finally compromised with the adoption of the first financial assistance package to Greece in May 2010 and the creation of the EFSF and ESM bailout facilities (see Subsection 2.5). Thus, the 'no bailout' principle was replaced by a policy of conditional bailout, that is, financial assistance in exchange for a country's commitment to fiscal adjustments and necessary reforms.

De facto suspending the market discipline mechanism in 2010 was to be compensated by stronger fiscal rules at both the EU and national levels, which were to be backed by stronger sanctions, including financial ones. However, their enforcement has not improved. The large number of various exceptions written into the EDP is one reason for this failure.

Another, and perhaps more important, cause relates to the collective action problem, which is when there is no sufficient majority among member states in favour of fiscal rules enforcement. As illustrated in Tables 1 and 2, most EA countries have not complied with the Maastricht criteria for a considerable period of time. They have also frequently been the subject of EDP. The same reason can explain the repeated circumvention of the 'no bailout' clause since 2010. Having high public indebtedness, high exposures to the sovereign debt of countries in trouble and fragile banking systems impaired by the global financial crisis, most EMU member states have been afraid of cross-country crisis contagion. This has decreased their appetite to enforce the 'no bailout' principle.

Finally, the economic and political debate during the global and European crises has been influenced by advocates of continuous fiscal stimulus or at least those who opposed fiscal tightening. Opponents of "austerity" frequently questioned the rationale of the existing EU/ EMU fiscal rules and their enforcement (see Krugman, 2012a, b, 2013; Layard, 2012; Soros, 2012). In such an intellectual atmosphere, it was not easy to build political consensus in favour of strict enforcement.

4.2.3. Debt mutualization: the wrong sort of federalism

Some of the proposals of fiscal and political union are, in fact, dysfunctional from both the economic and political points of view. They can produce the wrong fiscal incentives on a national level, distributional conflict among member states (as observed during Greece's crisis) and provoke political backlash against deeper integration.

The 'Deep and Genuine EMU' proposal of the European Commission (2012) was one such example. It suggested the creation of a European Redemption Fund, an idea originally developed by the German Council of Economic Advisors, which meant a step further towards a conditional bailout policy as compared to the current solutions. On the other hand, it wanted to further increase its prerogatives to monitor national budgets (currently under the European Semester procedure), including some kind of veto power with respect to national budget decisions (an instrument rarely used in federal states – see Cottarelli, 2012a). This would make EU fiscal rules increasingly intrusive and rather incompatible with the dominant political and legal architecture of the EU, i.e., a sort of limited federation or confederation. Furthermore, in the context of rising Euro-skepticism, such intrusiveness could serve only as a convenient argument against "Brussels bureaucracy" in the hands of populists of various political colours. This has been clearly seen in the case of the controversy between the European Commission and the Government of Italy on the size of its planned fiscal deficit for 2019.

Fortunately, the "Five-Presidents Report" (Juncker et al., 2015) did not follow the European Commission's (2012) proposal of the European Redemption Fund and moving towards direct controls of national budget policies. Nor did it mention any other form of debt mutualization mechanism.

However, debt mutualization proposals, largely issuing Eurobonds, are continuously coming back into the public debate in various contexts – not only rescuing countries in fiscal troubles but also building deeper financial markets in the EA. Some of them can still be considered a form of conditional bailout, e.g., the Blue Bond proposal of Delpla & von Weizsaecker (2010) Others represent either an unconditional bailout or a bailout with weak conditionality and substantial moral hazard risk (see e.g., Soros, 2012; De Grauwe, 2013; Eichengreen and Wyplosz, 2016).

The idea of Eurobonds might make sense if it served financing EU budget needs, under the condition that the EU would have sufficient own revenue sources in the future to pay back this debt. Currently the gap between EU spending commitments and available budget resources is financed in the form of payment arrears, i.e., by suppliers and beneficiaries of EU programs and transfers.

4.2.4. How to overhaul the EU fiscal discipline mechanism?

As discussed above, fiscal discipline at the national level should be based, in first instance, on credible default threat and national fiscal rules[13]. The EU fiscal rules can play only a supplementary role. If they go too far and become too intrusive, the chances of their effective enforcement will only diminish due to the collective action problem and technical difficulties with the implementability of too complex, arbitrary, and sometimes, internally incoherent rules.

13 Proposals by Eichengreen and Wyplosz (2016a) are going in the same direction.

However, rebuilding market discipline will not be an easy task in the context of the fresh memory of a series of sovereign bailouts carried out during the European debt and financial crisis, some of which (as in the case of Greece) remain unfinished. It will also require rebuilding intellectual and political consensus on the importance of medium- and long-term fiscal sustainability constraints, economic benefits of low public debt level, and the importance of supply-side reforms in increasing individual countries' growth potential.

In practical terms, the first step to rebuilding the credibility of Article 125 of the TFEU should be the transformation of the ESM into a fiscal backstop of the Single Resolution Mechanism and future EDIS. As result, the ESM sovereign bailout mandate would be terminated, at least for financing new rescue programs.

The EDP should be simplified as much as possible by eliminating various exceptions and loopholes as well as stopping the use of variables such as a potential output, which are subject of ex-ante forecast and expert judgment error and, therefore, subject to political bargaining between member states and the European Commission. On other hand, financial sanctions, which proved unimplementable, should be replaced with automatic political sanctions, for example, suspending a member state's voting rights in the Economic and Financial Affairs Council (ECOFIN) if its budget deficit or public debt breaches Treaty criteria in a systematic way.

Fortunately, as a result of the Six-Pack legislation and Fiscal Compact, the EU member states adopted or strengthened already existing national fiscal rules such as upper deficit and debt limits written into countries' constitutions and secondary legislation. This can help in strengthening fiscal discipline on a national level without the need for further developing bureaucratic and intrusive surveillance procedures at the EU level.

4.3. EMU enlargement

The process of EMU enlargement has stalled since Lithuania joined the single currency on 1 January 2015.[14] Seven out of nine "outs" Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania and Sweden – do not have an opt-out from EMU membership (like the UK and Denmark) but most of them have not been in a hurry to join the common currency, for various political and economic reasons. On the other hand, the 19 "ins" have not always been enthusiastic about admitting new members to the club, at least in the short-term, and a similar approach has been represented by both the ECB and the European Commission.

However, the Commission's approach started to change with the 2017 State of the Union Address by President Jean-Claude Juncker who expressed the desire that the EUR be a single currency of the EU as whole rather than of a select group of member states.[15] In its post-2020 proposal of the Multiannual

14 This subsection draws from Dabrowski (2017).

15 http://europa.eu/rapid/press-release_SPEECH-17-3165_en.pdf.

Financial Framework, the European Commission (2018) offers a dedicated Convergence Facility for the EU member seeking to adopt the EUR within the Reform Support Programme. Such a new approach offers the opportunity to restart EA enlargement and reconsider the "pros" and "cons" of EUR adoption both from the point of view of the entire EU and the individual member states with an "out" status.

From the perspective of the entire EU, three kinds of arguments – political, institutional and economic – should be taken into consideration in the question of potential enlargement of EMU.

Historically, EMU membership proved the most powerful factor in "multi-speed" integration, leading to an increasing degree of internal differentiation between "ins" and "outs". This might have had a negative impact in terms of political ownership of EU rules and decisions, undermining solidarity in addressing common challenges, and creating differentiation of economic and political interests. For example, during and after the European debt and financial crisis, "outs" were rather reluctant to contribute to the repair of the EA architecture. As a result, some major reform steps, such as the Fiscal Compact, had to be introduced through intergovernmental treaties outside the existing body of EU law. Other initiatives such as the BU were limited *de facto* to EA countries, even if it would be desirable that all EU countries join. (Formally the "outs" can join the BU but only in 2018 did Bulgaria start to move in this direction as a condition to be admitted to the ERM2 – see Lehmann, 2018).

Many other economic governance frameworks – the SGP, MIP and European Semester – are more intrusive and rigorous with respect to the "ins" than the "outs", even if there is no economic justification for the differentiation. Fiscal, financial or balance-of-payments fragility in any member state could be equally destabilising for the entire EU, regardless of whether a given country uses the EUR or its national currency.

This dual economic governance regime can also have a negative impact on the functioning of EU institutions. The European Commission, Council and European Parliament represent all member states, but some of their decisions only relate to the EMU members. This might lead to conflicts of interest when representatives of "outs" have to take part in deciding on issues of vital importance for the "ins". They may block the new integration steps within the euro area because they fear marginalisation (see below). On the other hand, "ins" can ignore the side effects their initiatives might have for the "outs".

Since the beginning of the European debt and financial crisis in 2010, one can observe the increasing role of the Eurogroup, consisting of the EA's finance ministers, at the expense of the ECOFIN, which is often limited to rubberstamping Eurogroup decisions.

If the EA integrates further, for example, by adopting a separate EA budget or an EA budget line within the EU budget, it would complicate even more the functioning of the EU's governing bodies, especially the European Parliament, and would result in pressure for separate EMU governing bodies.

Thus, if the current "outs" join the EMU, it would substantially reduce the degree of "multi-speed" integration and make the EU more homogenous politically and institutionally.

Economically, a common currency is an integral component of the single market even if it is considered a separate integration project, subject to different membership criteria (see Subsection 2.2). The development of the BU since 2012 has brought new challenges to the single market for financial services, with increasing differentiation between regulatory regimes and degrees of cross-border in-

tegration for "ins" and "outs". If the process of establishing the BU continues, supplemented by deeper capital and labour market integration within the EA, there will be a risk of a formation of a *de facto* two-tier common market (closer for "ins" and looser for "outs") (Sapir and Wolff, 2016). Again, the EMU enlargement (which also means current "outs" joining the BU) might reduce this risk.

Apart from single market considerations, the instability of national currencies can also lead to financial crises in "outs" (as happened in 2008–09 in Hungary, Latvia and Romania), with negative implications for the entire EU.

On the negative side, if any country that does not meet accession criteria and is not ready to follow common rules after accession (especially those related to fiscal discipline) is allowed to join the EA, there will be a risk of new financial turbulence. Therefore, membership criteria cannot be compromised, as happened in the past.

The "outs" also have good reasons to think seriously about joining the EA. Politically, remaining outside the EMU means risking becoming second-order member states with limited influence over several EU policy decisions determined by the interests of "ins". Furthermore, after Brexit, the bargaining power of "outs" in the Council will substantially decrease. The risk of political marginalisation will further increase if a deeper integration of the EA goes ahead (see above).

Apart from trade and investment creation due to lower transaction costs, joining the EA could strengthen macroeconomic and financial stability in the current "outs". First, it would move monetary policy decisions beyond domestic politics. Second, it would give national central banks access to the ECB's refinancing facilities, which may be helpful in times of market stress. Third, membership in the BU would mean, in most cases, tighter regulatory standards enforced by the regulatory authority independent of domestic politics. Finally, adopting the EUR would help to reduce the high share of foreign-currency denominated loans in total loans and foreign-currency denominated liabilities in total liabilities, especially in Croatia, Bulgaria and Romania.

Even if according to the OCA theory, exchange rate flexibility[16] can serve as an adjustment tool in cases of macroeconomic imbalances or idiosyncratic shocks, in the contemporary environment of financial globalisation, exchange rate movements are not always driven by changes in trade and current account balances. More frequently, they respond to changes in global capital flows. That is, for small open economies, exchange rate flexibility will not necessarily deliver the desired direction of exchange rate adjustment in a given period (from the point of view of the trade balance). For the same reason (unrestricted capital movement), central banks in small open economies have limited room to manoeuvre in "leaning against wind", i.e. conducting interest rate policies that differ from those of major central banks. In the long run, exchange-rate flexibility cannot replace microeconomic flexibility, i.e., be a substitute for structural reforms.

Furthermore, larger-scale currency depreciation can easily damage financial sector stability and the balance sheets of non-financial corporations and households.

16 Bulgaria with its currency board and Croatia with a tightly managed peg to the euro cannot benefit from exchange rate flexibility. These two countries seem to be the most interested in joining the EA soon.

References

Balcerowicz, Leszek (2014): "Euro Imbalances and Adjustment: A Comparative Analysis." *Cato Journal*, Vol. 34, No. 3 (Fall). Available at http://object.cato.org/sites/cato.org/files/serials/files/cato-journal/2014/9/cj34n3-1.pdf.

Berglof, Erik, Barry Eichengreen, Gerard Roland, Guido Tabellini, and Charles Wyplosz (2003): "Built to Last: A Political Architecture for Europe". *Monitoring European Integration*, vol. 12, Center for Economic Policy Research: London.

Bordo, Michael D., Agnieszka Markiewicz, and Lars Jonung (2011): "A Fiscal Union for the Euro: Some Lessons from History." *NBER Working Paper*, No. 17380, September. Available at http://www.nber.org/papers/w17380.pdf.

Buiter, Willem H., Giancarlo M. Corsetti, and Paolo A. Pesenti (1998): "Interpreting the ERM Crisis: Country-Specific and Systemic Issues". *Princeton Studies in International Finance*, No. 84, March. Department of Economics, Princeton University, Princeton, NJ. Available at https://www.princeton.edu/~ies/IES_Studies/S84.pdf.

Cohen, Benjamin J. (2008): "Monetary Unions". In: Whaples, R. (ed.): *EH.Net Encyclopedia*, 10 February. Available at http://eh.net/encyclopedia/monetary-unions/.

Committee (1989): "Report on the Economic and Monetary Union in the European Community". Committee for the Study of Economic and Monetary Union, April. Available at http://ec.europa.eu/economy_finance/publications/publication6161_en.pdf.

Constancio, Vitor (2015): "Assessing the new phase of unconventional monetary policy at the ECB". Panel remarks at the Annual Congress of the European Economic Association, University of Mannheim, 25 August. Available at http://www.ecb.europa.eu/press/key/date/2015/html/sp150825.en.html.

Cottarelli, Carlo (2012a): "European Fiscal Union: A Vision for the Long Run." Presentation at the Gerzensee Conference, 1–2 November. IMF Fiscal Affairs Department. Available at https://www.imf.org/external/np/speeches/2012/110112.htm.

Cottarelli, Carlo (2012b): "Fiscal Federations: Lessons for the Design of a European Fiscal Union." Presentation at the ECB-IMF Conference in Frankfurt, 13 December, IMF Fiscal Affairs Department. Available at https://www.imf.org/external/np/speeches/2012/121312.htm.

Dabrowski, Marek (2010): "The Global Financial Crisis: Lessons for European Integration". *Economic Systems*, Vol. 34 (2010), Issue 1, pp. 38–54. Available at http://www.sciencedirect.com/science/arti-

cle/pii/S093936251000004X/pdfft?md5=64da8ecccd7f0b30febad2a70d60c3cd&pid=1-s2.0-S093936251000004X-main.pdf.

Dabrowski, Marek (2015a): "Monetary Union and Fiscal and Macroeconomic Governance". *European Economy Discussion Papers*, No. 13/2015, September. Available at http://ec.europa.eu/economy_finance/publications/eedp/pdf/dp013_en.pdf.

Dabrowski, Marek (2015 b): "Five lessons on Greece". *Bruegel blog*, 16 July. Available at http://bruegel.org/2015/07/five-lessons-on-greece/.

Dabrowski, Marek (2016): "The future of the European Union: Towards a functional federalism". *Acta Oeconomica*, Vol. 66 (S1), pp. 21–48.

Dabrowski, Marek (2017): "Euro-area enlargement: a new opening?" Bruegel blog, 2 November. Available at http://bruegel.org/2017/11/euro-area-enlargement-a-new-opening/.

Dabrowski, Marek (2018): "Economic recovery and inflation". Briefing paper prepared for the European Parliament's Committee on Economic and Monetary Affairs (Monetary Dialogue), IP/A/ECON/2018-01, PE 614.213, 21 February. Available at http://www.europarl.europa.eu/cmsdata/138401/MD%20CASE%20final.pdf.

Darvas, Zsolt, and Guntram B. Wolff (2015): "Choices after the Greferendum". *Bruegel blog*, 6 July. Available at http://bruegel.org/2015/07/choices-after-the-greferendum/.

De Grauwe, Paul (2006): "On Monetary and Political Union". *CESifo Forum*, No. 4/2006. Available at http://www.cesifo-group.de/DocDL/forum4-06-focus1.pdf.

De Grauwe, Paul (2013): "Pool debt, or face dangerous upheavals across Europe." *Europe's World*, Spring. Available at http://www.europesworld.org/NewEnglish/Home_old/Article/tabid/191/ArticleType/articleview/ArticleID/22076/language/en-US/Default.aspx.

Demertzis, Maria, Konstantinos Efstathiou, and Fabio Matera (2017): "The Italian Lira: the exchange rate and employment in the ERM". *Bruegel Blog*, 13 January. Available at http://bruegel.org/2017/01/the-italian-lira-the-exchange-rate-and-employment-in-the-erm/.

Delpla, Jacques and Jakob von Weizsaecker (2010): "The Blue Bond Proposal." *Bruegel Policy Brief*, No.3/ 2010/, 5 May. Available at http://bruegel.org/2010/05/the-blue-bond-proposal/.

Draghi, Mario (2015): "Stability and Prosperity in Monetary Union." *Project Syndicate*, 2 January. Available at http://www.project-syndicate.org/print/ecb-eurozone-economic-union-by-mario-draghi-2015-1#.

ECB (2011): "The Monetary Policy of the ECB". European Central Bank. Available at https://www.ecb.europa.eu/pub/pdf/other/monetarypolicy2011en.pdf?806851948acaa66136356457a4641a6c.

Efstathiou, Konstantinos and Guntram B. Wolff (2018): "Is the European Semester effective and useful?". Bruegel Policy Contribution, No. 9/2018, 13 June. Available at http://bruegel.org/wp-content/uploads/2018/06/PC-09_2018_3.pdf

Efstathiou, Konstantinos and Francesco Papadia (2018): "The euro as an international currency". Bruegel Policy Contribution, No. 25/ 2018, 18 December. Available at http://bruegel.org/wp-content/uploads/2018/12/PC-25_2018.pdf.

Eichengreen, Barry and Charles Wyplosz (1993): "The Unstable EMS". Brookings Papers on Economic Activity, Vol. 24, Issue 1, pp. 51–144. Available at https://econpapers.repec.org/RePEc:bin:bpeajo:v:24:y:1993:i:1993-1:p:51-144.

*Eichengreen, Barry and Charles Wyplosz (2016a): "*Minimal conditions for the survival of the euro". In: Baldwin, Richard and Francesco Giavazzi (eds.): *How to fix Europe's monetary union: Views of leading economists*. A VoxEU.org eBook, CEPR Press: London. Available at https://voxeu.org/sites/default/files/file/epub/rebooting2_upload.pdf.

Eichengreen, Barry and Charles Wyplosz (2016b): "How the Euro Crisis was successfully resolved". In: Baldwin, Richard and Francesco Giavazzi (eds.): *How to fix Europe's monetary union: Views of leading economists*. A VoxEU.org eBook, CEPR Press: London. Available at https://voxeu.org/sites/default/files/file/epub/rebooting2_upload.pdf.

Eurobarometer (2018): "The euro area". Flash Eurobarometer, No. 473, October. The European Commission and Kantar Public. Available at http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/ResultDoc/download/DocumentKy/84503.

European Commission (1969): "Commission Memorandum to the Council on the co-ordination of economic policies and monetary co-operation within the Community". The European Commission, 12 February. Available at http://ec.europa.eu/economy_finance/emu_history/documentation/chapter2/19690212en015coordineconpoli.pdf.

European Commission (1990): "One market, one money. An evaluation of the potential benefits and costs of forming an economic and monetary union". *European Economy*, Vol.44, Available at ec.europa.eu/economy_finance/publications/pages/publication7454_en.pdf.

European Commission (2012): "A Blueprint for a Deep and Genuine EMU. Launching a European debate". Communication from the European Commission, COM (2012) 777, 28 November. Available at

http://ec.europa.eu/archives/commission_2010-2014/president/news/archives/2012/11/pdf/blueprint_en.pdf.

European Commission (2018): "The EU budget and the Economic and Monetary Union". The European Commission. Available at https://ec.europa.eu/commission/sites/beta-political/files/budget-proposals-economic-monetary-union-may-2018_en.pdf.

Eyraud, Luc and Raquel Gomez Sirera (2014): "Constraints on Sub National Fiscal Policy". In: Cottarelli, Carlo and Martine Guerguil, M. (eds.): *Designing a European Fiscal Union: Lessons from the Experience of Thirteen Federations*, Routledge.

Feldstein, Martin (1997): "EMU and International Conflict". *Foreign Affairs*, November/December. Available at https://www.foreignaffairs.com/articles/europe/1997-11-01/emu-and-international-conflict.

Feldstein, Martin (2012): "The Failure of the Euro". *Foreign Affairs*, January/February. Available at https://www.foreignaffairs.com/articles/europe/2011-12-13/failure-euro.

Fleming, J. Marcus (1962) "Domestic financial policies under fixed and floating exchange rates". IMF Staff Papers, Vol. 9, pp. 369–379.

Frankel, Jeffrey A. (1999): "No Single Currency Regime is Right for All Countries or at All Times." *NBER Working Paper*, No. 7338, September. Available at https://www.nber.org/papers/w7338.pdf.

Frankel, Jeffrey A., and Andrew K. Rose (1998): "The Endogeneity of the Optimum Currency Area Criteria". *The Economic Journal*, vol. 108 (July), pp. 1009–1025.

Frieden, Jeffry (2016): "Lessons for the euro from early US monetary and financial history". *Bruegel Essay and Lecture Series*, 25 May. Available at http://bruegel.org/wp-content/uploads/2016/05/essay_frieden_may16.pdf.

Friedman, Milton (1997): "The Monetary Unity to Political Disunity?". *Project Syndicate*, 24 August. Available at https://www.project-syndicate.org/commentary/the-euro--monetary-unity-to-political-disunity.

Fuest, Clemens and Andreas Peichl (2012): "European Fiscal Union: What Is It? Does It Work? And Are There Really 'No Alternatives'?". *IZA Policy Paper*, No. 39, March. Available at http://ftp.iza.org/pp39.pdf.

Gordon, Robert J. (2016): "The Rise and Fall of American Growth. The US Standard of Living Since the Civil War". Princeton and Oxford: Oxford University Press.

Gros, Daniel (2013): "Banking Union instead of Fiscal Union?". In: Allen, Franklin, Elena Carletti, E. & Joanna Gray (eds.) Political, Fiscal and Banking Union, European University Institute, Florence & Wharton Financial Institutions Center University of Pennsylvania, Philadelphia, US. Available at finance.wharton.upenn.edu/FIC/FICPress/politicaleuro.pdf.

Henning, C. Randall and Martin Kessler (2012): "Fiscal Federalism: US History for Architects of Europe's Fiscal Union". *Bruegel Essay and Lecture Series*, 10 January. Available at http://bruegel.org/wp-content/uploads/imported/publications/essay_fiscfed_web_01.pdf.

Issing, Otmar (2003): "Monetary and Financial Stability: Is there a Trade-off?", speech at the European Central Bank Conference on "Monetary Stability, Financial Stability and the Business Cycle", March 28–29, Bank for International Settlements, Basle. Available at https://www.ecb.europa.eu/press/key/date/2003/html/sp030329.en.html.

Issing, Otmar (2013): "The case for political union isn't convincing." *Europe's World*, Summer, http://www.europesworld.org/NewEnglish/Home_old/Article/tabid/191/ArticleType/ArticleView/ArticleID/22139/language/en-US/Default.aspx.

James, Harold (1997): "Monetary and Fiscal Unification in Nineteenth-Century Germany: What Can Kohl Learn from Bismarck?". *Essays in International Finance*, No. 202, March. Department of Economics, Princeton University, Princeton, NJ. Available at https://www.princeton.edu/~ies/IES_Essays/E202.pdf.

Juncker, Jean-Claude et al. (2015): *Completing Europe's Economic and Monetary Union*. European Commission, 22 June. Available at http://ec.europa.eu/priorities/economic-monetary-union/docs/5-presidents-report_en.pdf.

Krugman, Paul (2011): "Can Europe Be Saved?", *The New York Times Magazine*, 12 January. Available at https://www.nytimes.com/2011/01/16/magazine/16Europe-t.html.

Krugman, Paul (2012a): "European crisis realities." *The New York Times*, 25 February, Available at http://krugman.blogs.nytimes.com/2012/02/25/european-crisis-realities/.

Krugman, Paul (2012b): "Europe's Austerity Madness." *The New York Times*, 27 September. Available at http://www.nytimes.com/2012/09/28/opinion/krugman-europes-austerity-madness.html?_r=0.

Krugman, Paul (2013): "Austerity Europe." The New York Times, 23 February. Available at http://krugman.blogs.nytimes.com/2013/02/23/austerity-europe-2/.

Laeven, Luc and Fabian Valencia (2012): Systemic Banking Crises Database: An Update. *IMF Working Paper*, No. WP/12/163. Available at https://www.imf.org/external/pubs/ft/wp/2012/wp12163.pdf.

Layard, Richard (2012): "The tragic error of excessive austerity", *VoxEU.org*, 6 July. Available at http://voxeu.org/vox-talks/tragic-error-excessive-austerity.

Lehmann, Alexander (2018): "Criteria for entry into the ERMII and the banking union: the precedent from Bulgaria". Bruegel blog, 29 August. Available at http://bruegel.org/2018/08/criteria-for-entry-into-the-ermii-and-the-banking-union-the-precedent-from-bulgaria/.

McKinnon, Ronald (1963): "Optimum currency areas". *American Economic Review*, vol. 53, pp. 717–725.

Mortensen, Jorgen (2004): "Economic Policy Coordination in EMU: What Role for the SGP?" *CEPS Working Document*, No. 202, June, https://www.ceps.eu/system/files/book/1127.pdf.

Mourlon-Druol, Emmanuel (2017): "Rethinking Franco-German relations: a historical perspective". Bruegel Policy Contribution, No. 29/2017, 7 November. Available at http://bruegel.org/wp-content/uploads/2017/11/PC-29-2017.pdf.

Mundell, Robert (1961): "A theory of optimum currency areas", *American Economic Review*, vol. 51, pp. 657–665.

Mundel, Robert (1963): *"Capital mobility and stabilization policy under fixed and flexible exchange rates". Canadian Journal of Economic and Political Science, vol. 29, Issue 4, pp. 475–485.*

Mundell, Robert (1973a): "Uncommon Arguments for Common Currencies". In: H.G. Johnson and A.K. Swoboda (eds): *The Economics of Common Currencies*, Allen and Unwin, pp. 114–32.

Mundell, Robert (1973b): "A Plan for A European Currency". In: H.G. Johnson and A.K. Swoboda (eds.), *The Economics of Common Currencies*, Allen and Unwin, pp. 143–172.

Mundell, Robert (1997): "Currency Areas, Common Currencies, and EMU", *American Economic Review*, vol. 87, Issue 2, pp. 214–216.

Oates, Wallace E. (1999): "An Essay on Fiscal Federalism." *Journal of Economic Literature*, Vol. 37, No. 3, pp. 1120–49.

Obstfeld, Maurice, and Kenneth Rogoff (1995): "The Mirage of Fixed Exchange Rates". *NBER Working Paper*, No. 5191, July. Available at https://www.nber.org/papers/w5191.pdf.

Obstfeld, Maurice, Jay C. Shambaugh, and Alan M. Taylor (2004): "The Trilemma in History: Tradeoffs among Exchange Rates, Monetary Policies, and Capital Mobility. *NBER Working Paper*, No. 10396, March. Available at https://www.nber.org/papers/w10396.pdf.

Praet, Peter (2016): "The ECB and its role as lender of last resort during the crisis". Speech by Peter Praet, Member of the Executive Board of the ECB, at the Committee on Capital Markets Regulation conference on "The lender of last resort – an international perspective", Washington DC, 10 February 2016. Available at https://www.ecb.europa.eu/press/key/date/2016/html/sp160210.en.html.

Schoenmaker, Dirk (2018): "Building a stable european deposit insurance scheme". *Bruegel blog*. 19 April. Available at http://bruegel.org/2018/04/building-a-stable-european-deposit-insurance-scheme/.

Soros, George (2012): "Germany's reticence to agree threatens European stability", *Financial Times*, 24 June. Available at http://www.georgesoros.com/articles-essays/entry/germanys_reticence_to_agree_threatens_european_stability/.

Stark, Juergen (2018): "The Eurozone's Solidarity Fallacy". *Project Syndicate*, 17 December. Available at https://www.project-syndicate.org/commentary/risk-sharing-jeopardizes-eurozone-stability-by-jurgen-stark-2018-12.

Wolff, Guntram B. (2012): "A Budget Capacity for Europe's Monetary Union". *Bruegel Policy Contribution*, Issue 22/2012, December. Available at http://bruegel.org/wp-content/uploads/imported/publications/pc_2012_22_EA_budget_final.pdf.

Wyplosz, Charles (2013): "Europe's Quest for Fiscal Discipline". *Economic Papers*, No. 498. European Commission, Directorate-General for Economic and Financial Affairs, April. Available at http://ec.europa.eu/economy_finance/publications/economic_paper/2013/pdf/ecp498_en.pdf.

Wyplosz, Charles (2015): "The centralization-decentralization issue". *European Economy Discussion Paper*, No. 014, September. Available at http://ec.europa.eu/economy_finance/publications/eedp/pdf/dp014_en.pdf.