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Certain Member States of the European Union Do Not Seem Eager to Adopt the Euro. Why? An Example of Arguments vs. Facts

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Abstract

Economic analysis may be threatened by politics and there has been plenty of politics in regard to the euro. Certain Central and Eastern European countries, after they became members of the European Union in 2004, started the process to join the euro area. There seemed to be broad political consensus and enthusiasm for the common currency and the European Monetary Union in those countries at the time. Prior to the global financial crisis that started in 2008, institutional research and academic and other arguments for adopting the euro focused on cost-benefit analyses emphasizing positive effects of the euro. Twenty years after the introduction of the euro, certain EU member states do not seem enthusiastic to give up their national currency. The key reason seems to be that the financial crisis revealed the incomplete monetary architecture of the euro area. This research reviews key arguments for the adoption of the euro before the crisis and compares them to the evidence before and after the crisis. The analytical framework used includes an example of a country with the euro (Greece) in comparison with its two neighboring countries without the euro (Bulgaria and Romania) in the region of southeastern Europe and the Western Balkans. The analysis finds that good times benefit all, while bad times can bring disproportionate harm to the country with the euro.

Keywords: monetary policy, euro, southeastern Europe, European Monetary Union

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1. Introduction

The legal and institutional framework for the European Monetary Union (EMU) was set by the Maastricht treaty in 1992. At the time the project of a single currency was perceived as the most significant step toward European integration [1] and many renowned academics later agreed that the euro was primarily a political project [2, 6, 7]. In addition to political arguments, there were also economic arguments in favour of a single currency, voiced by academics [3] and various national and international institutions [16]. However, there were some economic arguments against the introduction of the euro[4] that came to light after 2008 with the emergence of the sovereign debt crises that had large economic costs in certain EMU countries, most notably in Greece. During and after the crisis, some European Union (EU) states with their own national currency, Poland in particular, fared considerably better compared to most EMU countries. Feldstein [5], Krugman[6] and Stiglitz [7] then argued that imposing a single currrency on a very heterogeneous group of countries had to have negative consequences. A heterogeneity

that is not only in economic structures and fiscal traditions but also in social attitudes and other characteristics[8] produced huge economic, social and institutional costs.

The euro was launched on January 1, 1999 and coins and banknotes were put into circulation on January 1, 2002. The EU treaties set the formal requirements to adopt the euro and become a member of the EMU. The Treaty on the Functioning of the European Union states that the third stage of the EMU means that EU countries have to meet specific convergence criteria to join the euro area. Monetary powers of the member states in the euro area must be exercised in the European System of Central Banks (ESCB). As of 2021 there are 19 euro area member states, five of them are from the ex-communist, Baltic and central and eastern Europe (Slovakia, Slovenia, Estonia, Lithuania and Latvia). However, the global crisis of 2008 raised certain concerns about the benefits of abandoning the independent monetary policy and adopting the euro[9]The crisis negatively affected the upward convergence, an important goal of the EU. Even those who helped create the EMU, such as Otmar Issing, voiced their concern, saying that some countries should have never joined the EMU because they had not been ready "to thrive under a single monetary policy and one central bank" [10]. Bulgaria and Croatia from the southeastern and peripheral Europe in the last few years clearly declared their intention to join the euro area and entered the euro waiting room (ERM II) in July 2020. All new EU members are obligated to adopt the euro at some point in time, i.e. when they fullfil the Maastricht convergence criteria; however Hungary, Poland and Czechia do not seem to be in a hurry to adopt the single currency.

The possible answer to "why" these countries do not seem enthusiastic about joining the euro area is explored in this research by exploring an example of a country with the euro (Greece) versus certain EU countries that are not in the euro area (Bulgaria, Romania). The analytical framework explores facts in relation to those economic arguments that "promised" countries joining the EU and EMU the convergence in economic development, fall in unemployment and higher GDP per capita in purchasing power standards. Within this analytical framework the paper looks at relevant statistical indicators. The paper takes into account a political economy approach, considering that politics had an important role in the EU integration process and the creation of the EMU [28, 43, 44]. A novelty of the paper is that it compares Greece (for which there is plenty of literature as to why the crisis hit it so strongly and what went wrong) with the two adjacent EU countries that performed considerably better during and after the crisis although they are not in the euro area. The contribution of the paper highlights some of the arguments and facts evolving around the question of one currency in a currency union that contributed to Greece's divergence from the EU average in terms of GDP per capita, contrary to Bulgaria and Romania. The choice of countries in this example of arguments versus facts takes into account the importance of location. The countries chosen for the research are in the largely same geographical area. Geography is important as the European Parliament [13] found that those euro area countries that are geographically closer to the "northern core countries" managed to perform better before and after the crisis. This paper finds that in 2020, Greece, the country with the euro, has still not reached its income level of more than a decade ago.

2. Methodology and Data

The research methodology is quantitative. It is based on the numerical data from the databases at the EU's statistical office, the Eurostat and the International Monetary Fund (IMF). Key indicators are explored statistically and comparatively for a selected group of countries in two separate periods, before and after the crisis that started in 2008.

The research looks at a few key indicators that were at the core of arguments for the adoption of the euro. These indicators are real annual economic growth, GDP (%), unemployment rate (%) and GDP per capita in Purchasing Power standards (PPS). The last indicator, GDP per capita in PPS, is a volume chained index, calculated on the EU as a base [11]. The average of the EU27 in 2020 is set at 100. If this index of a particular country is lower than 100, that particular country's GDP per capita in PPS is lower than the EU average and vice versa. This indicator is different from the GDP per capita which is a statistical indicator calculated as a ratio of real GDP to the population in a particular year. As an illustration, in 2020 GDP per capita in Greece was 16,300 euro, while in Romania and Bulgaria it reached 8,780 euro and 6,600 euro, respectively. The Eurostat's calculation of GDP per capita in 2020 is based on the national accounts indicator (ESA 2010).

The indicator GDP per capita in PPS is a volume index, expressing real expenditure per capita. This index is suitable for this research for two reasons. First, because this index eliminates the differences in price levels between countries, it is suitable to be used in cross-country comparison between Greece on one side, and Bulgaria and Romania on the other side. Second, the index GDP per capita in PPS is an analytical tool that has been used as a comparison of economic development between EU member states. The index is used in regard to the EU regional national accounts and regional development in the EU in terms of the allocation of structural funds [12] and with respect to the framework of the EU's structural policy. In line with that, the aim of the analysis is to present outcomes in real expenditure per capita in selected EU countries. The indicator is chosen for this research because the crisis of 2008 affected economic and social convergence leading to a widening gap between the least developed and the most developed countries in EU [13]. The indicator is directly related to the key economic arguments for economic integration and expected benefits of the EU and EMU membership. As such, it does not only enable meaningful comparisons between countries, it also shows relative performance in converging or diverging from the ultimate goal of joining the EU and EMU.

3. Decade before the crisis

3.1. Economic arguments for adopting the euro

Academics have argued that the reasons to have one currency in the EU were actually political [5–7] because the idea at the time was that one currency would lead to a deeper political integration of the EU member states. The anticipation was that the euro was an important channel to achieve a closer union because the common currency would promote trade and foreign direct investment inside the euro area. This was later proved [14]. Some authors [1] emphasized that a common currency would generate a greater sense of being a part of a European community.

One of economic arguments for adopting the euro was the elimination of transaction costs. The argument says that economic activity within the EU would be stimulated by the elimination of transaction costs and exchange rate uncertainty [15]. A boost to GDP would come from easier production and planning in one currency and better collaboration of domestic companies with their counterparts in the EU. The second argument was about international trade that was perceived as the main channel through which the euro would have a positive effect on the EU and EMU members. EBRD claimed that "Economic and monetary union may result in an amplification of the type of economic benefits that have followed from previous integration efforts" [16, p.4]. The EBRD saw considerable GDP growth effects from increased trade within the block and micro- and macro- efficiency gains. Similarly, the National Bank of Slovakia believed that the euro adoption should increase the total foreign trade by approximately 50 % long-term [15]. An additional key argument in favor of joining the euro area was about foreign direct investment (FDI). The argument was based on the assumption that being a member of the euro area implies more economic growth in the EU and the acceding countries as well. As a result, there would be more FDI into those countries [16], including through the Europe-wide production networks that would attract further FDI. Another argument for the adoption of the euro was that membership of EMU would induce economic reform of the fiscal policy and lead to changes in labor and product markets, all having positive effects that would help reduce the rate of unemployment and give an impetus to the economic growth [17]. An important argument in favor to adopting the euro was about financial markets and the decrease of the cost of capital. According to certain institutional arguments [15] joining the euro area would eliminate country risk costs, leading to a decrease of real interest rates. That would reduce capital costs and create incentives for domestic and foreign investments. In regard to financial markets, the argument [16] states that the European financial market would lead to broader funding possibilities compared to the segmented markets across each EU country. As a result of a fall in nominal interest rates, sovereign and private borrowers could borrow cheaper. In the long run, acceding ex-communist economies (with typically higher inflation) would benefit from lower real interest rates which would facilitate economic restructuring. Further, the integrated markets for euro-denominated bonds enable companies in the EU to turn to the bond markets to obtain credit, away from banks [16]. The argument was that not only a well-functioning euro market would reduce the costs of financing

but that it would make it possible for companies to issue their corporate bonds and approach these markets directly.

Another argument was about the institutional and legal convergence to the euro area [16]. The argument evolves around the independence of the central bank and the prohibitions to finance the government because any form of direct central bank financing of government budgetary deficits is not allowed. The Maastricht Treaty also prohibits bail-out of an EU country by another EU country or the EU budget. A related argument was that EMU encourages tight budgetary and fiscal policy and strict economic management.

Additional arguments for joining the euro area was about price visibility and facilitating trans-border travel. The first part is about comparing the price of identical products in different EU countries easier while the second part is about no need to change currency when travelling across the EU. Facilitating trans-border travel would benefit travellers and their purchasing power while travelling in the EU[16].

3.2. Economic arguments against adopting the euro

One of the arguments against adopting the euro was about the fixed national exchange rate vis-à-vis the euro and all other countries of the euro area and, at the same time the same exchange rate in relation to all other world currencies [44]. Further, in a monetary union not only that all its member states have a single currency, the monetary policy's interest rate is the same for all countries, which is not optimal [5–7]. The key argument against adopting the euro evolved around the theory of optimal currency area [45]. This theory says that among the countries of a currency union there must be a high degree of mobility of production factors (capital and labor), fiscal integration, openness, financial integration [14] and, according to some authors this theory also implies a significant institutional and structural convergence [18].

However, most of the arguments against the euro before the creation of EMU and before the crisis in 2008 were more or less different from what actually appeared to be the key problems during and after the crisis [19].

4. Facts for 2001 -- 2008

4.1. Greece

The first ten years after the accession to the European Community in 1981, GDP growth was relatively modest (Figure 1). In the second decade it gathered pace to reach almost 4% in 2000, a year before joining the euro area. While public debt was relatively stable between 1995 and 2000, standing at around 100% of GDP (Table 1), it exploded after 2008 to reach about 182% of GDP in 2014 and stayed around that level until the end of 2019 (Table 1).

Greece became a member of the European Community in 1981 and on 1 January 2001 it joined the euro area. The fixed conversion rate of Greek currency, drachma was set at

340.750 GRD to 1 euro [54]. The Convergence Report of the Commission and the ECB as of 2000 [55] found that Greece achieved from April 1999 to March 2000 a 12-month average rate of HICP inflation of 2.0%, while the general government deficit ratio in 1999 was 1.6%, both below the Maastricht reference value. The debt ratio, although at 104.4% in 1999, far above the reference value, fell compared to 1998 “by 1 percentage point of GDP” [55, p.10]. The ECOFIN in 2000 established that Greece met the necessary conditions so that the derogation of Greece should be abrogated from 1 January 2001 [54]. At the time there were concerns that Greece didn’t really fullfil the convergence criteria to become a member of the euro area, because it met EMU requirements “only recently and partly due to temporary effects”[56] which led to questions whether that would be sustainable long term.

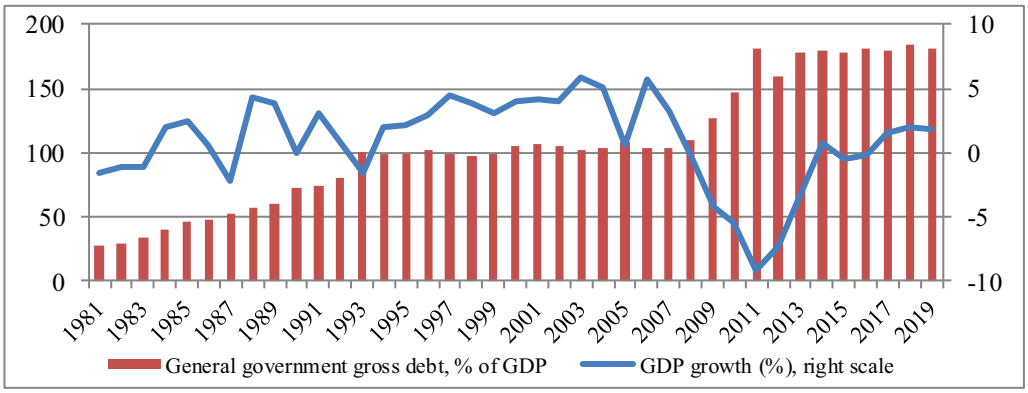

Figure 1: GDP growth and public debt from 1981 to 2019 (Source: Author’s compiled data from the IMF, 2020)

In the two decades that followed Greece’s accession to the EU, FDI inflows increased. However, according to some researchers the country’s FDI inflows were relatively modest as Greece did not manage to capitalize on the Olympic Games in 2004, and did not make any significant improvements in terms of competitiveness [20]. This was mainly attributed to bureaucracy issues, inefficient public governance, high taxation, the absence of clear investment incentives, and market factors such as labor costs [21].

The expectations were that Greece’s membership in the EMU would be a catalyst for reform [22] to accelerate country’s real convergence toward the EU’s economic and social level. GDP growth in Greece was based on domestic demand, fuelled by borrowing, both public and private [22].

After joining the euro area in 2000, the twin deficits -budget deficit and current account deficit- became larger (Figure 2) due to higher fiscal expenditures in relation to fiscal revenues and because Greece imported more than it exported. Part of the reason for these twin deficits lie in the monetary policy [47]. The European Central Bank (ECB) performs monetary policy of “one-size-fits-all” leading to the fact that nominal interest rates had to fall in those countries where interest rate was traditionally relatively high, such as Greece. The consequence was that lower real interest rates in Greece influenced borrowing. Households, as well as the corporate sector and the government reduced their savings and increased their borrowing. The public sector borrowed to finance its budget deficits and the public debt in relation to GDP rose significantly after

TABLE 1: Key fiscal and macroeconomic variables from 1981-2020

Year	Real GDP (%)	General government net lending/borrowing, % of GDP	General government gross debt, % of GDP	Year	Real GDP (%)	General government net lending/borrowing, % of GDP	General government gross debt, % of GDP
1981	-1.6	-7	26.9	2001	4.1	-5.5	108.0
1982	-1.1	-5.4	29.6	2002	3.9	-6.1	105.8
1983	-1.1	-6.1	33.9	2003	5.8	-7.9	102.3
1984	2	-7.1	40.4	2004	5.1	-8.9	103.7
1985	2,5	-9.5	47.0	2005	0.6	-6.2	108.3
1986	0,5	-8.5	47.5	2006	5.7	-6.0	104.5
1987	-2.3	-8	52.8	2007	3.3	-6.7	104.0
1988	4.3	-9.5	57.1	2008	-0.3	-10.3	110.4
1989	3.8	-11.8	60.3	2009	-4.3	-15.3	127.8
1990	–	-13.2	73.8	2010	-5.5	-11.3	147.5
1991	3.1	-9.5	75.3	2011	-10.2	-10.5	183.9
1992	0.7	-10.6	80.6	2012	-7.1	-6.6	162.0
1993	-1.6	-11.4	101.1	2013	-2.7	-3.6	178.9
1994	2	-8.4	99.1	2014	0.7	-4.1	181.5
1995	2.1	-9.8	99.8	2015	-0.4	-2.8	178.9
1996	2.9	-8.2	102.2	2016	-0.5	0.6	183.4
1997	4.5	-6.1	100.2	2017	1.3	1.1	182.4
1998	3.9	-6.3	98.3	2018	1.6	0.9	189.9
1999	3.1	-5.8	99.8	2019	1.9	0.6	184.9
2000	3.9	-4.1	105.8	2020	-8.2	-9.9	213.1

Source: Author's compiled data from the IMF, 2021

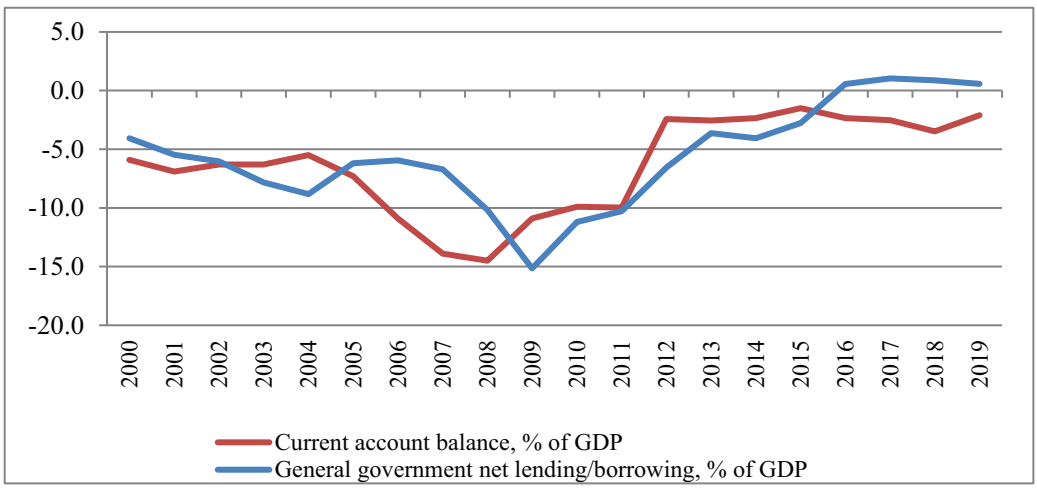

Figure 2: Twin deficits of Greece in the period after it joined the euro area (Source: Author's compiled data from the IMF, 2020)

2008 (Table 1). In "good times", i.e. the period from 2000 to 2008 of no major global

crisis on the horizon, Greece experienced a rise in GDP per capita in purchasing power standards (Figure 5), economic growth (Figure 3) and a fall in unemployment (Figure 4).

4.2. Greece compared to Romania and Bulgaria

Romania and Bulgaria only became EU members at the start of 2007. GDP per capita in purchasing power standards (PPS) in Greece was about 80% of the EU average in 1995. A year before joining the euro area, GDP per capita in PPS reached 88% of EU average. In the same year, GDP per capita at PPS in Bulgaria and Romania stood only at 28.4% and 25.8% of the EU average, respectively.

In a few years before becoming a member of the EU in 2007, Bulgaria's economy boomed, assisted by the EU funds in the EU pre-accession process. In the pre-accession phase from 2003 to 2007 the total EU assistance allocated to Bulgaria was 502 million euro [46]. In line with its transition to a market economy and the preparation for the EU entry, GDP growth was strong during that period (Table 2), while external imbalances grew and the current account deteriorated, particularly from 2004 onward. However, Bulgaria's fiscal balance was positive and public debt was low. By 2005, two years before the country's accession to the EU, Bulgaria reduced its public debt to below 30% of GDP (Table 2). There was a steady convergence towards the EU average in terms of GDP per capita in PPS (Table 4).

Table 2: Bulgaria - key macroeconomic variables before the crisis

	2000	2001	2002	2003	2004	2005	2006	2007	2008
GDP growth, %	4.8	3.8	6.0	5.2	6.4	7.2	6.8	6.6	6.1
General government net lending/borrowing, % of GDP	-0.6	-0.6	-0.6	0.0	1.6	2.2	3.2	3.1	2.7
General government gross debt, % of GDP	73.3	67.1	53.4	45.4	37.8	28.5	22.6	17.6	14.7
Current account balance, % of GDP	-3.1	-3.6	-0.6	-3.4	-4.3	-9.4	-15.3	-23.9	-22.1

Source: Author's compiled data from the IMF, 2020

Table 3: Romania - key macroeconomic variables before the crisis

	2000	2001	2002	2003	2004	2005	2006	2007	2008
GDP growth, %	2.9	5.2	5.7	2.3	10.4	4.7	8.0	7.2	9.3
General government net lending/borrowing, % of GDP	-4.0	-3.2	-2.6	-2.3	-3.4	-0.7	-1.4	-3.0	-4.6
General government gross debt, % of GDP	29.6	27.4	27.4	24.9	21.3	17.8	12.7	12.4	13.0
Current account balance, % of GDP	-2.6	-3.2	-2.7	-4.7	-7.6	-8.8	-10.5	-13.6	-11.5

Source: Author's compiled data from the IMF, 2020

Romania, similarly as Bulgaria, both ex-communist countries that started their transition to market economies in mid 1990s, had a strong economic performance in the EU pre-accession phase. Large capital inflows, including from the EU pre-accession funds, stimulated domestic demand. During 2003-2007 the total EU pre-accession assistance allocated to Romania was 1,461 million euro [46]. Both countries joined the EU on January 1, 2007.

Economic performance of Greece in 2000, a year prior to joining the euro area, was -in terms of the base level as regards GDP at market prices- about 20% higher than Romania's and Bulgaria's level (Figure 3). Greek unemployment rate in 2001 was 10.5%, considerably lower than Bulgaria's unemployment rate which stood at 19.9%. Greek unemployment rate was slightly higher than Romania's unemplomet rate of 6.7% (Table 4). However, Greek GDP per capita in PPS in 2000, a year before joining the euro area, was well above the same indicator of the other two countries. In 2008, before the effects of the crisis started to manifest, Greece was close to the average of the EU, while Bulgaria and Romania were at and below 50% of EU average in GDP per capita in PPS (Figure 5). Another statistical indicator, GDP per capita, show the same. In 2007 when Bulgaria and Romania's entry into the EU, GDP per capita, in Bulgaria was 4.500 euro and in Romania it reached 5.560 euro (Figure 10). Both figures are well below of Greece which in 2007 reached 21.840 euro in GDP per capita [24].

However, the main key difference between Greece on one side, and Bulgaria and Romania on the other side -from an economic policy viewpoint- was that in 2001 Greece joined the euro area. Its public debt at the time was around 107% of GDP, more than believed when the ECOFIN adopted the decision in 2000 that Greece should join the euro area on 1 January 2001. The problem of the true scale of the budget deficit and public debt figures and that figures reported were not what was believed to be when accepting Greece in the euro area became clear when in 2004 the Eurostat reported substantial revisions of budgetary and public debt figures reported by Greek authorities [53].

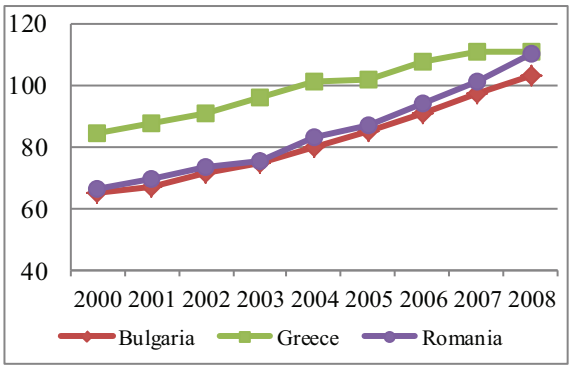

Figure 3: GDP at market prices before 2008 (chain-linked volumes, index 2010=100)

On the other side, there are two important similarities in all three countries in a decade prior to the crisis of 2008. First, all three countries were receiving large funds through the EU, Greece via the EU budget and its structural funds, Bulgaria and Romania via pre-accession EU aid. Greece was a net beneficiary in relation to the EU budget for

many years prior to the crisis. A year before joining the euro area in 2001, Greece was the biggest net beneficiary in terms of cohesion funds at the EU [50] in relative numbers. Before the enlargement in 2004 when new EU members became large net beneficiaries of EU funds, most notably Poland which was at the top in absolute numbers [51], Greece was one of the largest net beneficiaries [58] relative to its size and population. Greece retained that position even after 2004 [51]. Romania and Bulgaria were also receiving EU funds before they entered the EU in 2007 and after, when they also became large net beneficiaries of the EU structural funds [49, 51].

The second similarity in all three countries is the current account deficit. However, the reasons for the current account deficit are different across these three countries. In Bulgaria and Romania the deficit was fuelled with the transition process to a market economy and the start of the accession negotiation with the EU, leading to significant foreign investment-related capital inflows and high domestic demand. The reasons for current account deficit in Greece were different. With the euro area membership of Greece since 2001 and an integrated market for capital with one currency, there were capital inflows to Greece mostly from northern Europe, contributing to the real exchange rate appreciation. The Greek competitiveness declined [22] and the current account balance deteriorated [47]. The current account deficit in Greece was on average about 8% of GDP between 1999 and 2007, reaching almost 15% in 2008 (Figure 2) before the consequences of the crisis that started in 2008 began to manifest.

Table 4: Comparing indicators before the start of crisis in all three countries

		2000	2001	2002	2003	2004	2005	2006	2007	2008
GDP per capita in PPS (index EU27_2020 =100)	Bulgaria	29	30.3	32	33.8	35.2	37.9	38.6	40.6	43.3
	Greece	88.2	90.3	93.3	96.5	98.2	95.2	97.8	94.3	94.8
	Romania	26.4	27.7	29.6	30.5	34.7	35.7	39.6	44.1	51.6
Unemployment rate (%)	Bulgaria	16.9	19.9	18.1	13.8	12.1	10.1	9.0	6.9	5.6
	Greece	11.4	10.5	10.0	9.4	10.3	10.0	9.0	8.4	7.8
	Romania	7.3	6.7	8.3	6.9	7.7	7.2	7.3	6.4	5.8
GDP at market prices, chain-linked volumes (index 2010=100)	Bulgaria	64.6	67.1	71.1	74.7	79.6	85.2	91	97	102.9
	Greece	84	87.5	90.9	96.2	101.1	101.7	107.4	110.9	110.6
	Romania	66.1	69.6	73.5	75.3	83.1	87	94	100.8	110.1

Source: Author's compiled data from the Eurostat, 2020

5. After the crisis - facts

The after-crisis debate on why the crisis hit certain EMU member states such as Greece more than others evolved around the arguments about the divergencies among

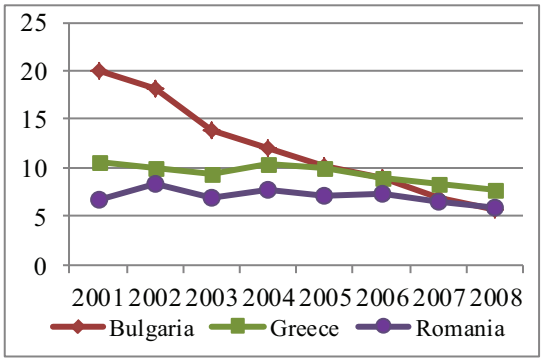

Figure 4: Unemployment rate (%) before 2008 (Source: Author's compiled data from the Eurostat, 2020)

countries [6, 7], the institutional flaws of the EMU [28, 43], fiscal recklessness [30] and that euro was a political project with little economics in mind [8]. The academic conclusion has been [25] that fiscal recklessness was an important part of the origin of crisis in Greece, although there have been arguments [26] that large government deficits would have not been much of a problem if Greece had not been a member of the monetary union. In addition to not having own monetary policy and own currency to use it as an adjustment policy in response to a fall in demand, the lack of fiscal cushion in certain euro area countries exacerbated all sorts of problems in the aftermath of the crisis that started in 2008 [6, 7, 48].

5.1. Greece compared to Bulgaria and Romania

Between 2008 and 2014 GDP in Greece declined by approximatetly 25% and didn't improve considerably since then. In 2018 and 2019 there was a revival of GDP growth, together with the record number of tourist arrivals, but that recovery path was hit by the Covid-19 virus outbreak in 2020. Relative living standards in Greece that reached more than 90% of the EU average in 2009, fell below 70% by 2016 and remained around that level since then (Figure 10).

Bulgaria and Romania didn't experience such a strong and prolonged recession, a sky-rocketting unemployment and a large fiscal deterioration compared to Greece, although both countries felt the effects of the crisis. The economy of Bulgaria started to feel the effects crisis about a year after 2008 [23]. The economy of Bulgaria was hit via real sector and export oriented industries and the pre-crisis GDP growth stumbled. The economy of Romania was similarly affected in late 2008 and 2009, however both, Bulgaria and Romania had high fiscal buffers because both countries had their public debt well below 60% of GDP in years before joining the EU and before the crisis in 2008 (Table 2 and Table 3)

In the decade since the outbreak of the crisis in 2008, Bulgaria and Romania performed relatively better than Greece in terms of GDP, unemployment rate and GDP per capita in purchasing power standards (PPS). Although their public debt increased, it remained well below the required Maastricht condition of 60% of GDP. The public debt remained below 30% in Bulgaria (Figure 6, left) and below 40% in Romania (Figure 6,

right). The dynamic of Bulgaria's and Romania's debt is considerably better compared to the Greek debt [Table 4].

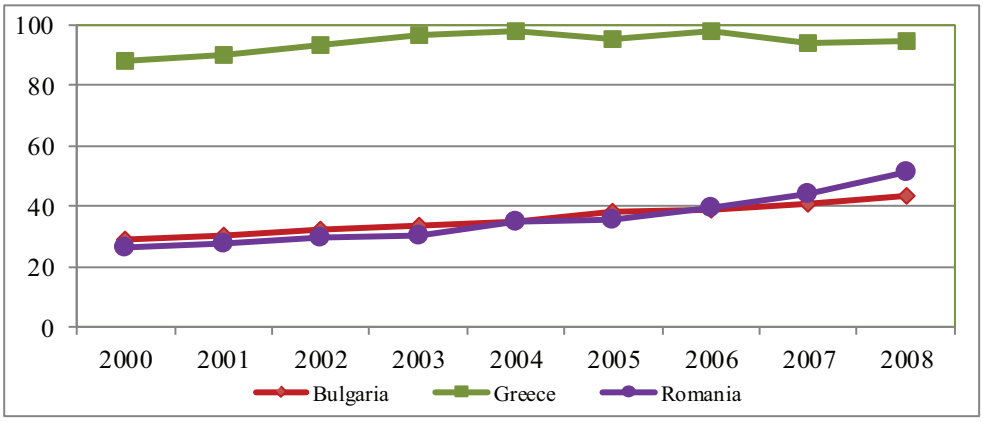

Figure 5: GDP per capita in purchasing power standards (PPS) before 2008 (index EU27_2020=100) (Source: Author's compiled data from the Eurostat, 2020)

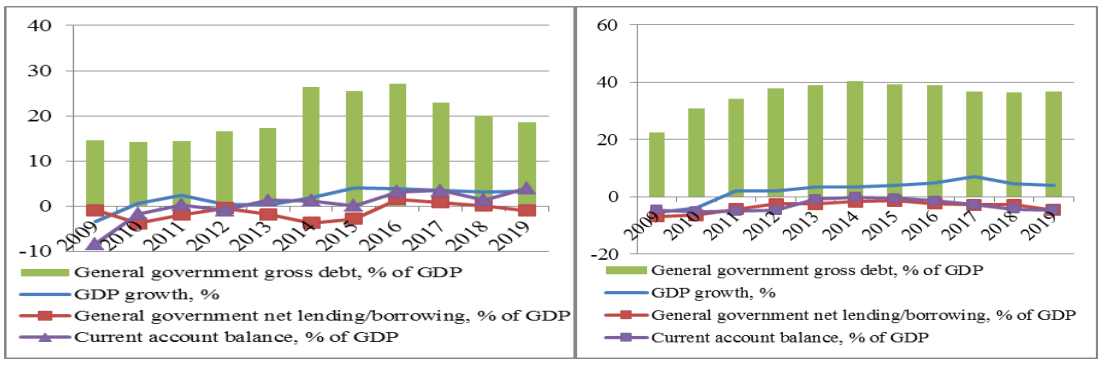

Figure 6: Macro-economic data for Bulgaria (left) and Romania (right) after 2008 (Source: Author's compiled data from the IMF, 2020)

The crisis of 2008 hit Greece hard with a real blow from "troika" (European Commission, ECB and IMF) and its austerity measures imposed on Greece [25, 27]. GDP plummeted and didn't recover considerably in the decade that followed the crisis (Figure 8). Disposable incomes, employment, wages and salaries all fell sharply, while poverty soared [57]. GDP per capita in PPS fell and didn't really recover (Figure 9). The Greek crisis has few historical precedents and it can be compared it to the US Great Depression of 1929 as the assistance from the troika pushed the country to the "syndrome of triple 25: over 25% recession since 2010, over 25% unemplyment rate and 25% of population living below the poverty level"[52, p. 46]

6. Discussion

This research finds that EU policy decisions before and after the crisis in 2008 contributed to the fact that certain non-EMU countries (e.g. Bulgaria, Romania) performed better than their EU counterparts with the euro (e.g. Greece) in the southern Europe. In addition to this being evident from above indicators, another widely used statistical

Table 5: Comparing key indicators after the start of crisis in all three countries

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
GDP per capita in PPS (index EU27_2020 =100)	Bulgaria	43.7	44.4	45.6	46.6	46	47.4	48	49.4	50.2	51.4	53
	Greece	95.3	84.8	74.6	71.5	72	71.9	69.9	67.7	67.2	66.6	66.5
	Romania	52.2	51.6	52	54.1	54.9	55.7	56.5	59.8	63.6	65.6	69.7
Unemployment rate (%)	Bulgaria	6.8	10.3	11.3	12.3	13	11.4	9.2	7.6	6.2	5.2	4.2
	Greece	9.6	12.7	17.9	24.5	27.5	26.5	24.9	23.6	21.5	19.3	17.3
	Romania	6.9	7	7.2	6.8	7.1	6.8	6.8	5.9	4.9	4.2	3.9
GDP chain-linked volumes (index_2010=100)	Bulgaria	99.4	100	102.4	102.7	103.1	105	109.2	113.4	117.3	121	125.4
	Greece	105.8	100	89.9	83.5	81.2	81.8	81.4	81	82.1	83.3	84.9
	Romania	104.1	100	101.9	104	107.9	111.8	115.1	120.5	129.3	135.1	140.7

Source: Author's compiled data from the Eurostat, 2020

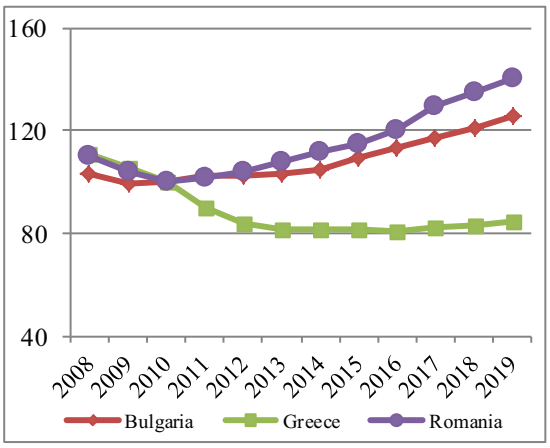

Figure 7: GDP at market prices after 2008 (index_2010=100) (Source: Author's compiled data from the Eurostat, 2020)

indicator, GDP per capita, confirms this, albeit from a slightly different angle. The GDP per capita indicator shows that in 2020 Greece was below the level it reached at the time when it joined the euro area in 2001 (Figure 9).

Part of the reason that Bulgaria and Romania performed considerably better than Greece is that those two countries were not bound by the troika (ECB, European Commission and the IMF) policy prescriptions of internal devaluation and their rescue plan for Greece, the plan of austerity implying wage and pension cuts, privatization and downsizing public services [25]. This austerity approach led to sharp increase in unemployment (Figure 9), considerably above the unemployment in Bulgaria and Romania. In addition, the degradation of public services (including hospitals, schools, universities) resulted in a perpetuating motion of weak growth performance, more unemployment and more disinvestment. Despite the negative effects of this austerity

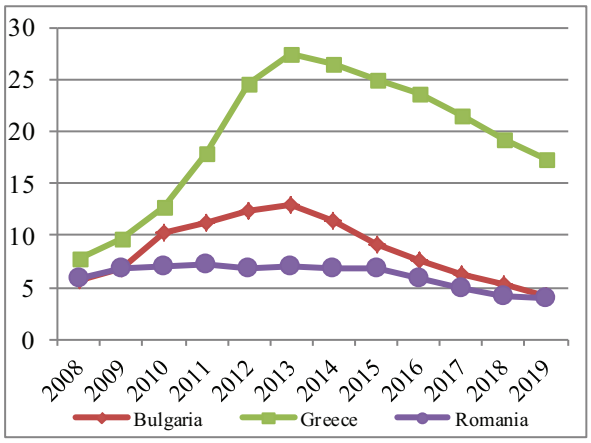

Figure 8: Unemployment rate (%) after 2008 (Source: Author's compiled data from the Eurostat, 2020)

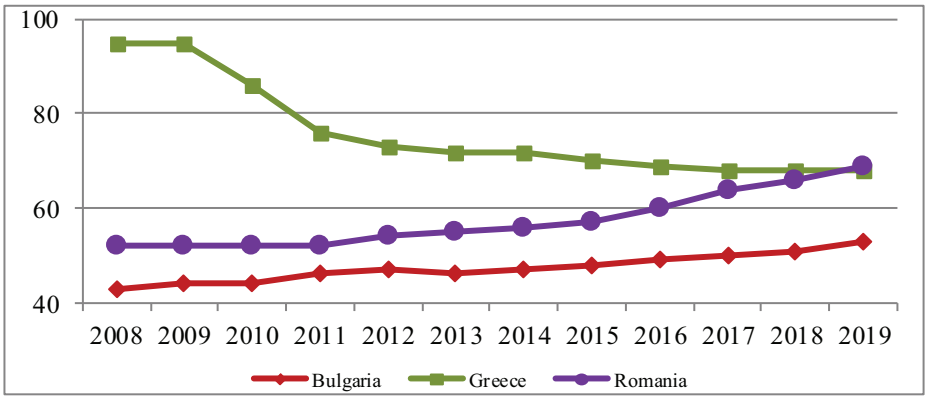

Figure 9: GDP per capita in purchasing power standards (PPS) after 2008 (index EU27_2020=100) (Source: Author's compiled data from the Eurostat, 2020)

policy, the same approach was implemented over and over again [27] regardless of the fact that the rosy projections for growth produced by the troika proved unrealistic [28].

The European Parliament found in 2019 that the degree of disparity and uneven distribution in economic performance inside the EMU has increased over time [13]. Some authors argued that it was not, as optimal currency theory envisages, asymmetric economic shocks that caused problems in the euro area, but that the real reasons were institutional asymmetries in the political economies of EMU member states [28]. The fact is that the legal and institutional infrastructure of the EMU before the crisis in 2008 did not have adequate provisions for fiscal policy action at the EMU level [13]. There wasn't an EMU budget that could alleviate local/national shocks to aggregate demand [6, 7]. The European Parliament [13] found that there was also no automatic stabilizers at the EMU level. The euro area countries could only rely on national fiscal policy, and even this was restricted and limited by the capacity of the national fiscal policies.The finding was that the weaknesses in the initial EMU design were revealed by the sovereign debt crisis after 2008.

The sovereign debt crisis hurt sourthern peripheral EU countries more than other, especially northern EU countries, and even more than other countries in the same EU

region, such as Bulgaria and Romania. These two countries also suffered in the crisis, but considerably less compared to Greece. Also, as this analysis show, the convergence to the EU average after the crisis of 2008 was observed in "new" EU members Bulgaria and Romania whose GDP per capita has steadily increased (Figure 10), compared to Greece. In 2001 when Greece became a member of the euro area, its GDP per capita was 18.050 euro. The convergence of this indicator for Greece reached 22.370 eur by 2008. But with the crisis after 2008 GDP per capita in Greece fell considerably. In 2019, a year before corona crisis, Greek GDP per capita was 17.750 eur, less than it was in 2001 when Greece joined the euro area (Figure 10).

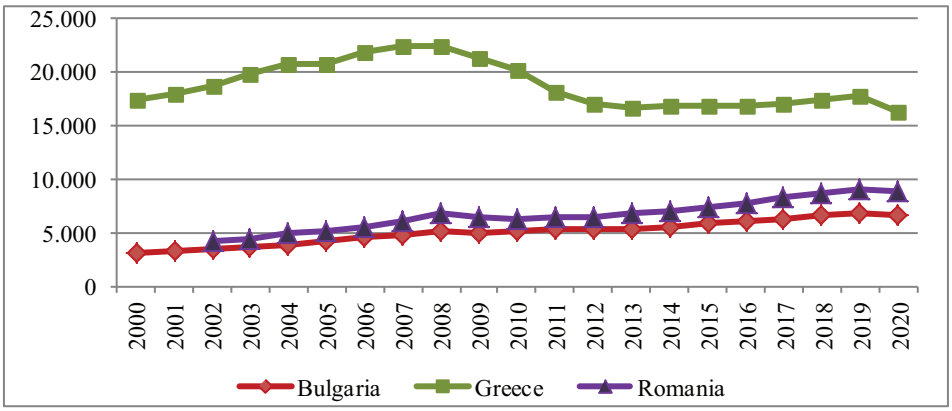

Figure 10: GDP per capita by countries, in euro (Source: Author's compiled data from the Eurostat, 2021)

The facts reveal that in the first decade of the euro many countries were not disciplined with their fiscal policies and government budget deficits, but that was not the only issue. While northern member states ran large current account surpluses, southern EU members built significant current account deficits [13]. Those deficits were financed by the credit flows from the euro area core countries to southern and peripheral euro area countries. Foreign competition kept wages low in the export sectors in Greece, but in non-tradable and sheltered sectors wages rose. As a result unit labour costs in the economy as a whole grew [28]. According to some authors, flaws in the design of the EMU accompanied by policies pushed by the EMU's largest member, Germany, have contributed to the euro crisis [29].

After 2008 and contrary to the arguments before the crisis, the adoption of the euro was seen as a source of macroeconomic instability [9]. Stiglitz [7]pointed out that a common currency means one interest rate and a fixed exchange rate among very different countries. He emphasized that in order to help those economies for which one currency rate and monetary policy of one interest rate are not well suited, Europe should have created a number of institutions to help them. Krugman [6] had similar arguments, adding that Europe has not created any support for troubled countries.

By giving up its own currency, a country also gives up economic flexibility and the benefit of having its own federal government to support it in times of economic trouble [6]. Contrary to Greece, Romania has a flexible exchange rate and the Romanian currency leu trades in line with a flexible exchange rate regime under managed floating of the currency's exchange rate. Since 1999 the Bulgarian currency lev has been pegged

to the euro at the fixed rate as part of the currency board arrangement. This might add to the explaination why convergence of Bulgaria has been slightly slower compared to the convergence of Romania to the EU average (Figure 10) considering that countries whose currency are pegged have a weaker output performance on average, than countries with floating rates [30].

Some authors [31] analyze the divergent developments in the intra-euro area because the real exchange rate between 1999 and 2008 were the result of the "the ECB's single monetary policy led to a very unbalanced pattern of capital flows and growth in the Eurozone's first decade" [31, p.10]. They found that while the real exchange rate of certain southern euro area members (e.g. Greece) appreciated considerably due to high capital inflows, the real exchange rate of Germany depreciated between 1999 and 2008 by about 20%, making German exports of products and services more competitive.

Although certain authors [32] believe that before entering the euro area new EU member states should prolong reform and adjustment path to a longer time frame before adopting the euro, the fact is that the longer time frame is not a guarantee by itself. As an example, in the case of Greece, there was a long period to adjust to the euro. Greece joined the European Community in 1981, about 20 years before it adopted the euro, and then there was another almost a decade before the beginning of the crisis in 2008. So there was almost three decades for Greece to "adjust" to the EU and EMU structures before the crisis in 2008. The crisis in Greece was a combination of a few problems. First, its competitiveness was low when it entered the euro area [25]. The second problem was the mismanagement of the economy [25–27] and governments with the lack of accountability and proper oversight in public finances together with inadequate systems for tax collection [28]. The third problem was that Greece's membership in the euro area and the ECB's monetary policy led to the fact that interest rates in Greece were too low for too long relative to the inflation in the economy [25]. Given that there were no exchange rate risks in the euro area, global financial markets and investors during that period generally didn't look at country-specific risks, including the growing imbalances in peripheral countries such as Greece. It is important to note that part of the crisis in Greece was produced by consistently high government budget deficit and growing public debt, even more than initially thought considering large subsequent revisions by the Eurostat [53]. The question is how Greece managed to continuously run such high budgetary deficits, against the rules of the EMU.

Part of the answer lies in the fact that the budgetary rules related to the stability in the EMU were set in the Stability and Growth Pact (SGP) that was never entirely respected by the member states [28]. The European Council emphasized the crucial importance of securing budgetary discipline in stage three of EMU its Resolution on the Stability and Growth Pact [33]but it proved difficult to enforce SGP against big countries such as France and Germany. As Hall noted SGP was not much than "a fig leaf" covering certain structural differences [28]. Decisions on excessive deficits had to be approved by the Council by a required majority. The Council's conclusions of 25 November 2003 in regard to France and Germany were annuled by the European Court of Justice in 2004 [34]. So not only that it was not easy to enforce SGP against certain countries, the SGP was further weakened by a 2005 reform, proposed by France and Germany. This reform

allowed the deadlines to correct excessive deficits to be prolonged. In addition, other relevant factors could be taken into account. The reform envisaged that the EU members states should achieve a budgetary effort of at least 0.5% of GDP in structural terms[35]. Some authors characterized the reform as averseness to punishing any country [36] while others emphasize that reforms should tackle the underlying deficiencies in the Pact such as inadequate enforcement [37].

According to certain authors there was little or no national interest in adopting the counter-cyclical fiscal policies in the EMU, while "Germans appeared perfectly happy to see their financial institutions lend wildly to the European periphery, even while they maintained their traditional fiscal conservatism at home" [38, p. 375]. Frieden and Walter [38] found that -in order to maintain the stability of the EMU- member states should have cooperated in designing and implementing fiscal policy, but there was not much interest to change national policies. According to Frieden and Walter [38], peripheral member states of the EMU didn't want to slow economic growth that was based on the borrowing by the private and public sector. Low real interest rates to finance growing public deficits was appealing. The 2005 reform of SGP and the lack of central fiscal stabilisation and coordination mechanism at the EU level aggravated problems during the 2008 crisis and exacerbated macroeconomic imbalances and divergences between the northern and the central, eastern and southern Europe.

Problems that built up in Greece before 2008 obviously cannot be attributed to Greece and its "reckless fiscal policies" only. Had Greece not been a part of the euro area, its independent monetary policy would have implied interest rates that would have been higher and its exchange rate with the rest of the world would depreciate to adjust to a fall in external demand. The decline in currency would make Greek exports more competitive. That would have been an automatic adjustment that was not possible since Greece had been a member of the euro area. Its nominal exchange rate is fixed. Under the EMU rules and options the only solution for Greece to improve competitiveness has been to reduce the cost of producing Greek goods and services. This implies a fall in most costs, including incomes such as wages. These would have to fall relative to wages in other countries of the euro area. Considering the level of public debt in Greece and austerity measures imposed upon Greece, the process of internal "devaluation" can take a very long, long time. In order to alleviate the pain some financial solidarity from the rest of the euro area should be expected.

The question is what type of solidarity is feasible considering that the EU Treaty provisions prohibit monetary financing (Article 123 and Article 125 of the Treaty on the Functioning of the European Union). the ECB could not do what most central banks do, leading to the conclusion that the EMU was established as the monetary union without "corresponding foundation of social solidarity" [28]. Can monetary union work without social solidarity and how hostile is the public opinion towards the idea of solidarity in the EU's redistributive policies? According to the Eurobarometer in 2020 [39], the attitude of the population in EU countries without the euro is not much in favor of the introduction of the single currency (Table 5) which is not in line with one of the conditions for a currency union to be an optimal currency union. The condition is that there are homogenous collective preferences among the citizens of an area.

Table 6: Attitude towards the introduction of the euro

		BG	CZ	HR	HU	PL	RO	SE
TOTAL Number of surveyed	7016	1004	1001	1000	1008	1000	1000	1003
Total Against euro introduction	**46%**	**50%**	**63%**	**42%**	**31%**	**49%**	**30%**	**62%**

Source: Europa, EU Open data portal, Flash Eurobarometer 487

Poland, Hungary and Czechia have openly rejected the possibility to adopt the euro soon. On May 22nd, 2019 the Poland's central bank Governor Adam Glapinski said that while he was in his job there would be no application by Poland to become a member of the euro area. He said giving up the national currency (zloty) would limit growth opportunities for the economy [40].Poland did considerably well during the crisis. Certain academics [41] believe that Poland did well during the ciris was because of its flexible exchange rate which depreciated sharply. The depreciation of their currency helped Poland remain competitive. In addition to its independent monetary policy suited to its economic conditions, the combination of monetary and fiscal policy were in a position to take a greater counter-cyclical role compared to certain countries in the euro area. As a result, Poland's economic performance was considerably better during the crises and afterwards, although it was without the "external anchor"' of the euro [9].

In addition to Checzia, that does not seem to be in a hurry to join the EMU, Hungary also seems unimpressed by the euro. Mihály Varga, the Hungarian Finance Minister in an interview with the Emerging Europe expressed his view by saying that "it would not be lucky to jump on a train if we don't know where it is headed" [42]. He said that introducing the euro would make Hungary uncompetitive and that since the beginning of the 2008 financial crisis, the nature of the euro has been in constant flux.

Regardless of the fact that the creators of the EMU did not see the monetary union in economic and technical terms as much as a stepping stone to a political union[43], the building of partial and incomplete institutions and regulations by 2008 led to severe economic consequences for some EMU countries, most notably Greece. The consequences were not just economic in terms of not achieving the goals of prosperity, the consequnces are political as well. As Stiglitz [7] noted, the euro failed to achieve political integration. The policies imposed on some debtor countries produced distrust and anger among EU member states as northern countries called southern Europe unreliable and lazy [6, 7]. The southern Europe, on the other hand, recalled Germany as the ocupator in WW2 [7].

With the onset of the crisis, the EU initiated many reforms of the EU institutional and regulatory set-up [13]. The reforms aimed to improve fiscal discipline in member states (e.g. European Semester), create mechanisms for financial management (eg. the European Systemic Risk Board, the European Stability Mechanism), improve oversight of national economic policies and outcomes (e.g. Macroeconomic Imbalances Procedure) and introduce relevant regulations (e.g. CRDIV/CRR regulations). The EU established institutions such as Single Supervisory Mechanism, the European Banking Authority, the European Securities and Markets Authorities and others.

However, although all these reforms have strengthened existing institutional architecture of the EMU, a single monetary policy of the ECB and many national economic and fiscal policies remained. The key issue of having one currency and not one treasury remains. This is the most important institutional framework that determines the adjustment to variouos shocks in a currency area that is not optimal, at least not optimal from a theoretical perspective [45]. The EMU does not have high mobility of certain factors of production, there are no significant fiscal transfers

7. Conclusion

The initial idea that led to the European integration, EMU and the euro was about politics, not economics. It was also politics that decided to let Greece join the euro area when it clearly did not fullfil the Maastricht criteria from a sustainable point of view. It was politics that designed and imposed the austerity measures on Greece, measures that led to a decade of doom and gloom. The crisis that started in 2008 has shown that at the EMU level there were no proper adjustment mechanisms designed for a such a crisis. Adoption of the euro in the incomplete EMU legal and institutional design exposed the fact that the ad-hoc solutions to the crisis were imposed by the economic, financial and political power of “core” EMU countries (especially Germany and France).

In comparison to Greece, Bulgaria and Romania were not limited in their policy options. Not only that they were free to decide on their own monetary policy and other policies, their fiscal positions were considerably better than Greece’s. They had strong GDP growth, small or no budget deficit and almost negligable public debt levels, while they were assisted by the pre-accession EU aid before the crisis. Therefore, they had better conditions to further converge to the EU average level after the crisis started. Greece, on the other hand was burdened not only with high twin deficits and large public debt, it had to accept the ‘troika’ bail-out conditions that led to a decade of economic and social misery.

This paper highlights diverging outcomes of EU member states that are in the largely same region (south-eastern Europe, western Balkans) where a country with the euro (Greece) performed considerably worse vis-à-vis two other EU countries (Bulgaria, Romania) without the euro. The analysis of data before and after the crisis in 2008 shows that a significant share of the “blame” for a dismal economic performance of Greece can be attributed to the inadequate architecture of the monetary union which did not envisage the possibility of such a financial crisis, let alone the possibility of social solidarity in the context of EMU.

This research is based on macroeconomic data with a focus on certain statistical indicators (GDP, unemployment, GDP per capita in PPS). These indicators are aggregated data and as such are not capable to capture some of the micro features at the country level. These features include cultural and social norms, behavioural patterns of consumption, social attitudes to investment and saving, tolerance for corruption and others. Regardless of the lack of these possible micro-explanations that might add to the understanding of the crisis, the fact is that the initial design of EMU was ill-suited to the possibility of a serious crisis across the whole euro area. Subsequent initiatives and

regulations at the EU level (e.g. macro prudential legislation, strengthened surveillance programme etc.), together with institutional changes (e.g.European Stability Mechanism, supervisory powers of the ECB, banking "union" etc.) established in the years after the crisis prove that –from the institutional and regulatory point of view – the EMU design before 2008 was flawed. Despite this ex-post strengthening of the institutional and regulatory framework in recent years at the EMU level, some EU countries do not seem convinced. They are reluctant to abandon their independent monetary policy and adopt the euro as their currency. Certain countries that are not in the euro area, most notably Poland, navigated through the crisis and after considerably better than some of their counterparts in the euro area. An example of arguments vs facts in the case of Greece compared to Bulgaria and Romania show why certain EU countries may be reluctant to join the euro area. Monetary policy of one currency and many national treasuries under economic shocks has proved to prevent true monetary and social unity. Not only that, the crisis led to clashes what to do and how to share financial burden of rescuing Greece in the fear of contagion. The proposed and enforced solutions led to divisive politics across the EU.

References

[1] Risse T, et al. To euro or not to euro? The EMU and identity politics in the European Union. European Journal of International Relations. 1999;5(2):147–187.

[2] Wiedmann J. The euro – Political project and prosperity promise. Introductory Statement at the Rencontres Économiques d'Aix-en-Provence; 2013; Aix-en-Provence, France.

[3] Buiter WH. Six months in the life of the euro. What have we learnt? Remarks prepared for a seminar on monetary and budgetary policy in the Economic and Monetary Union at Rabobank; 1999; Utrecht, Netherlands.

[4] Friedman M. Why Europe can't afford the euro? London, United Kingdom: The Times. 1997.

[5] Feldstein M. The political economy of the European economic and monetary union: Political sources of an economic liability. NBER; 1998. 35 p. No.: 6150.

[6] Krugman P. Revenge of the optimum currency area. NBER, Macroeconomics Annual. 2013;27(1):439-448. https://doi.org/10.1086/669188

[7] Stiglitz J. How a common currency threatens the future of Europe. New York: W. W. Norton Company; 2016.

[8] Feldstein M. The euro and European economic conditions. NBER; 2011. 16 p. No.: 17617.

[9] Dobrzańska A, Gromek T, Jędrzejowicz T, Kosior A, Migała M, Rubaszek M, et al. The economic challenges of Poland's integration with the euro area [Internet]. National Bank of Poland; 2015 [cited 2020 Dec 6]. Available from: https://www.nbp.pl/en/publikacje/inne/The-economic-challenges-of-Poland-s-integration-with-the-euro-area.pdf

[10] Smith C, Syred M. Euro founding father Otmar Issing warns about project's future. BBC News [Internet]. 2016 Nov 7 [cited 2021 Jan 5]. Available from: https://www.bbc.com/news/business-37859684

[11] GDP per capita in PPS [Internet]. Eurostat; 2021 [cited 2021 May 8]. Available from: https://ec.europa.eu/eurostat/web/products-datasets/-/tec00114

[12] Regional gross domestic product (PPS per inhabitant) by NUTS 2 regions [Internet]. Eurostat; 2021 [cited 2021 May 11]. Available from: https://ec.europa.eu/eurostat/databrwser/view/tgs00005/default/map?lang=en

[13] Gerba E. Euro project, 20 years on [Internet]. European Parliament; 2019 Jan [cited 2021 Apr 24]. Available from: https://www.europarl.europa.eu/cmsdata/159708/LSE_final{%}20publication.pdf

[14] Baldwin R. et al. Study on the impact of the euro on trade and foreign direct investment. EU economic paper 321 in European economy - Economic papers 2008 – 2015. 2008. 144 p.

[15] Šuster M. The effects of euro adoption on the Slovak economy [Internet]. National Bank of Slovakia; 2006 [cited 2021 Feb 3]. Available from: https://www.nbs.sk/_img/Documents/BIATEC/BIA06_06/2_6.pdf

[16] Implications of the euro for the integration process of the transition economies in Central and Eastern Europe. European Bank for Reconstruction and Development; 1999. 24 p. No.: 38.

[17] Growth in the Central and Eastern European countries. International Monetary Fund; 2006. 13 p. No.: 252.

[18] Wagner H. Can we expect convergence through monetary integration? (New) OCA theory versus empirical evidence from European integration. Comparative Economic Studies. 2014:1-24.

[19] Schmidt J. The introduction of the euro: Who warned, and why? Paper presented at: The 22nd FMM conference, The crisis of globalisation; 2018 Oct 25-27; Berlin, Germany.

[20] Zairis A. The course of foreign direct investment in the Greek economy. East West Journal of Economics and Business. 2016;19(2):11-32.

[21] Pantelidis P, Paneta E. Foreign direct investment in Greece: Labor, infrastructure and macroeconomic conditions [Internet]. 2017 [cited 2021 Apr 15]. Available from: https://www.researchgate.net/publication/334770274_Foreign_Direct_Investment_in_Greece_Labour_Infrastructure_and_Macroeconomic_Conditions

[22] Bank of Greece. The chronicle of the Great Crisis, the Bank of Greece 2008-2013, public interventions and institutional actions to safeguard financial stability and overcome the crisis [Internet]. Bank of Greece; 2014 [cited 2021 March 5]. Available from: https://www.bankofgreece.gr/Publications/The{%}20Chronicle{%}20Of{%}20The{%}20Great{%}20Crisis.pdf

[23] Yorgova N. The Eurozone and Bulgaria – Interrelations and future perspectives. Economic policy analyses [Internet]. Friedrich Ebert Foundation; 2011 [cited 2020 Dec 6]. Available from: library.fes.de/pdf-files/bueros/sofia/08494.pdf

[24] Real GDP per capita [Internet]. Eurostat; 2021 [cited 2021 Jun 7]. Available from: https://ec.europa.eu/eurostat/web/products-datasets/-/sdg_08_10

[25] Alogoskoufis G. Greece and the euro: A Mundellian tragedy. Discussion papers on Greece and Southeast Europe [Internet]. Hellenic Observatory; 2019 [cited 2021 Apr 12]. No.: 136. Available from: https://www.lse.ac.uk/Hellenic-Observatory/Assets/Documents/Publications/GreeSE-Papers/GreeSE-No1336.pdf

[26] Nikiforos M, et al. The Greek public debt problem [Internet]. Levy Economics Institute; 2016 [cited 2021 Mar 28]. No.: 867. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2781682

[27] Markantonantou M. Diagnosis, treatment, and effects of the crisis in Greece. A “special case” or a “test case”? Max-Planck-Institut fuer Gesellschaftsforschung MFIfG; 2013. No.: 13/3.

[28] Hall PA. The search for Europe: Contrasting approaches. Madrid: BBVA; 2016. The euro crisis and the future of European integration; p. 46-67.

[29] Bibow J. The euro debt crisis and Germany’s euro trillema. Levy Economics Institute of Bard College; 2012. 43 p. No.: 721.

[30] Gourinchas et al. The analytics of the Greek crisis. NBER Macroeconomics Annual. 2017;31(1):1-81. DOI: 10.1086/690239

[31] Copelovitch M. et al. The political economy of the euro crisis. Comparative Political Studies, SAGE Journals. 2016.

[32] Gabrisch H, Kδmpfe M. The new EU countries and euro adoption. Intereconomics, Review of European Economic Policy. 2013;48(3):180–186.

[33] European Council. Resolution on the stability and growth pact adopted in Amsterdam on 17 June 1997. Official journal 1997 C 236. European Council; 1997.

[34] Judgement of the Court. Case C 27/04, Commission of the European Communitis vs. Council of the European Union [Internet]. European Union; 2004. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62004CJ0027&from=EN

[35] Stability and growth pact reform: Commission welcomes agreement on new regulations. Press release IP/05/798 [Internet]. European Commission; 2005 [cited 2020 Oct 29]. Available from: https://ec.europa.eu/commission/presscorner/detail/en/IP_05_798

[36] Eijffinger SCW. On a reformed stability and growth pact. Intereconomics. Review of European Economic Policy. 2005;40(3):141-147.

[37] Annet AM, et al. Reforming the stability and growth pact [Internet]. International Monetary Fund; 2005 [cited 2021 Jan 17]. Available from: https://www.elibrary.imf.org/view/journals/003/2005/002/article-A001-en.xml

[38] Frieden J, Walter S. Understanding the political economy of the Eurozone crisis. Annual Review of Political Science. 2017;20(1):371-390. Doi:10.1146/annurev-polisci-051215-023101

[39] Europa, EU Open Data Portal. Flash eurobarometer 487: Introduction of the euro in the Member States that have not yet adopted the common currency [Internet]. Directorate-General for Communication; 2020 [cited 2020 Dec 27]. Available from: https://data.europa.eu/euodp/en/data/dataset/S2261_487_ENG

[40] Poland's central bank head says wont allow euro adoption. Reuters [Internet]. 2019 May 22 [cited 2020 Dec 16]. Available from: https://www.reuters.com/article/poland-eurozone-glapinski-idUSL5N22Y2V6

[41] Carlson M, et al. Should Poland join the euro? An economic and political analysis. Graduate policy workshop [Internet]. Princeton University; 2016 [cited 2021 Jan 7]. Available from: https://spia.princeton.edu/sites/default/files/content/ShouldPolandJointheEuro.pdf

[42] Istrate D. Hungary remains immune to the euro's charms [Internet]. Emerging Europe; 2020 Jan 29 [cited 2020 Dec 6]. Available from: https://emerging-europe.com/business/hungary-remains-immune-to-the-euros-charms/

[43] Spolaore E. The political economy of European integration. Center for Economic Studies & Ifo Institute working paper series [Internet]. Center for Economic Studies & Ifo Institute; 2015 Mar [cited 2020 Dec 22]. No. 5247. Available from: https://ssrn.com/abstract=2584911

[44] Friedman M. The euro: Monetary unity to political disunity? [Internet]. Project Syndicate; 1997 Aug 28 [cited 2020 Oct 30]. Available from: https://www.project-syndicate.org/commentary/the-euro--monetary-unity-to-political-disunity

[45] Mundell R. A theory of optimum currency areas. The American Economic Review. 1961;51(4):657-665.

[46] Pre-accession financing for Bulgaria and Romania: What lessons can be learned for the future enlargements? [Internet]. European Parliament; 2011 [cited 2021 Jan 16]. Available from: https://www.europarl.europa.eu/RegData/etudes/join/2011/453224/IPOL-JOIN_ET(2011)453224_EN.pdf

[47] Brissimis, et al. Current account determinants and external sustainability in periods of structural change. Bank of Greece; 2010. No.: 117.

[48] Pagoulatos G. Greece after the bailouts: Assessment of a qualified failure. Discussion papers on Greece and Southeast Europe [Internet]. Hellenic Observatory; 2018 Nov [cited 2021 Mar 13]. No. 130. Available from https://www.lse.ac.uk/Hellenic-Observatory/Assets/Documents/Publications/GreeSE-Papers/GreeSE-No130.pdf

[49] D'Apice P. Cross-border flows operated through the EU budget: An overview [Internet]. European Commission; 2015 Dec [cited 2021 Jan 4]. No.: 019. Available from: https://ec.europa.eu/info/sites/default/files/dp019_en.pdf

[50] EU budget: All Member States benefit – The poorer more than the others. Press realease IP/03/1269. Brussels: European Commission; 2003 Sept 18.

[51] D'Apice P. Cross-border flows operated through the EU budget: An overview [Internet]. European Commission; 2015 Dec [cited 2021 Feb 12]. No.: 019. Available from: https://ec.europa.eu/info/sites/default/files/dp019_en.pdf

[52] Kolodko GW. How to destroy a country. The economics and the politics of the Greek crisis. 2017 [cited 2021 Apr 15]. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3036957

[53] Report by Eurostat on the revision of the Greek government deficit and debt figures [Internet]. Eurostat; 2004 [cited 2021 May 8]. Available from: https://ec.europa.eu/eurostat/web/products-eurostat-news/-/GREECE

[54] Council Regulation (EC) no. 1478/2000 of 19 June 2000 amending Regulation (EC) 2866/98 on the conversion rates between the euro and the currencies of the Member States adopting the euro. Official Journal of the European Communities, 7.7.2000, L 167, p. 1.

[55] Convergence report [Internet]. European Central Bank; 2000 [cited 2021 May 5]. Available from: https://www.ecb.europa.eu/pub/pdf/conrep/cr2000en.pdf

[56] Herz B, Kotios A. Coming home to Europe: Greece and the euro. The Greek way into the eurozone. Intereconomics. Review of European Economic Policy. 2000;35(4):170-176.

[57] Papanastasiou S, Papatheodorou C. The Greek depression: Poverty outcomes and welfare responses. Journal of Economics and Business. 2018;21(1-2):1-18.

[58] EU budget generates major net transfers into Cohesion Countries. Press release IP/01/1312. Brussels: European Commission; 2001 Sept 25.