



Lisbon School
of Economics
& Management
Universidade de Lisboa

MASTER THESIS

MATEUSZ KIEŁTYK

**CONSEQUENCES OF THE EUROZONE AND OWN CURRENCY DURING
CRISIS – POLISH AND GREECE CASE**

MATEUSZ MARIUSZ KIEŁTYK

OCTOBER-2021



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SUPERVISION:
PROFESSOR ANTÓNIO AFONSO



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ABSTRACT

This thesis is related to Eurozone countries and countries with their currency in European Union, especially Poland. I will try to explain the reasons why some countries still have not joined the European Union, what type of problem can exist with their currency, and also what are the benefits from owning the national currency. What is more, I will analyze and discuss the Greece case as an example of potential difficulties eurozone countries may encounter. The main content of this thesis is related to the financial crisis between 2007 and 2009 and behavior of Poland and Greece not only during that time but also before and after these years.

KEYWORDS: zloty; eurozone; euro; Poland; Greece, currency, financial crises, monetary policy, monetary union

JEL CODES: E52, E58, G01, F36, F45

GLOSSARY

EMU – European Monetary Union

EU – European Union

GDP – Gross Domestic Product

ERM - European Exchange Rate Mechanism

ERM II - The European Exchange Rate Mechanism (ERM) II

EMS - European Monetary System

ECOFIN -Economic and Financial Affairs Council

EFSF - European Financial Stability Facility

EFSM European Financial Stabilization Mechanism

TFEU - Treaty on the Functioning of the European Union

ESM - European Stability Mechanism

IMF- International Monetary Fund

HICP - Harmonized Index of Consumer Prices

ESCB - European System of Central Banks

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1. INTRODUCTION

Whereas, it is commonly known that in European Union there are 27 countries, currently the euro (€) is the official currency of 19 of the 27 EU Member States. Together, these countries create the eurozone. This thesis considers the field of the growth rate of GDP per capita for Greece, the Slovak Republic and Estonia as the main subject of its study. It will help to widely observe and analyze the behavior of the economy which just have joined the euro. I will discuss and present the Polish growth rate of GDP per capita to see how zloty (polish currency) behaves during the financial crisis.

I will provide the reasoning why some countries have their own currency and why some of them prefer to not change it. For this study, it was of interest to investigate mechanize which is available for countries with their currency - what leads to the tools for the economy by monetary policy. I will examine and analyze Poland as one of the countries with its currency. This research also aims at introducing this mechanism and presenting the reasons why Poland decided to keep zloty by last 17 years, from when we joined The European Union, and euro did not appear in the economy as the main currency.¹

On the other hand, own and individual currency can also cause some problems if there is irresponsible government and it may lead to crisis for the country. One of the objectives is to show another side of the coin which is the euro as a currency for the other countries in the European Union. It can have a positive effect on the economy but at the same time, without proper introduction may give bad results not only for new joiner but also for the whole European Union. As an example, I will explain the Greece case. This thesis documents several key contributions to the field: differences, advantages and disadvantages of the owner of euro and its own currency in the European Union.

¹ Statement from the president of the Polish national bank(2021)

2. LITERATURE REVIEW

This has been discussed by a great number of authors in literature whether a country should have its own currency or join the eurozone. The problem itself and the solution is very complex. It is impossible to consider two exactly the same economies and join one of them to the euro area and leave the other with its own currency. Qualitative researches are very helpful in answering this inquiry. Each country has a different economic situation at a certain time - that is why it is better to take more than only a few countries into consideration. Data analysis for some countries is not enough so I decided to study the paper: "Currency Unions, Trade and Heterogeneity" by Natalie Chen and Dennis Novy - researchers at the UK's University of Warwick.

They decided to analyze 199 countries around the world in that matter; data from 1949-2013 prove that participation in a currency union increases trade by an average of 38% which is a good reason when considering joining the eurozone (monetary union).

However, we need to keep in mind that some of the conclusions may be wrong and may change in the future, as Rose's work in the early 2000s showed. This paper sparked a discussion about the commercial implications of adopting the single currency. They showed and proved that due to the creation of the monetary union, the trade turnover of its members would increase by over 200%. Subsequent research based on increasingly complex models and sophisticated methods of empirical verification led to a revision of Rose's view and a reduction in the scale of the expected intensification of trade within the monetary union. Ex-post studies of the effects of the introduction of the euro were also deeply crucial as they indicated an estimated 10% increase in trade.

In the paper "The impact of monetary integration on trade in goods in times of economic crisis" by Elżbieta Czarny, Paweł Folfas, Katarzyna Śledziowska and Bartosz Witkowski (2013) the authors examined whether the economic cooperation of member states is positively influenced by membership in the euro area. In the empirical test of the gravity model, they obtained results consistent with the expected ones both in the study of the impact on the level and on the dynamics of change in exports. The effect of monetary integration on the level of exports in the euro area turned out to be negative. It looks completely different in the matter of the effect of monetary integration on the dynamics of export change.

I also took into consideration the paper by Marek Rozkrut and Rober Woreta (2005) - 'Successes and failures of Greece on its way to the euro area. Applications for new EU countries'. In this literature the authors analyze, on the basis of the Greek example, the dependencies in the field of integration with the European Union and the euro area so far which is for sure a valuable hint for the new member states. This document shows the mistakes to be avoided and the good practices to be followed in the economic policy pursued within the single market and geared towards meeting the Maastricht criteria. The study also describes the period of Greece's belongingness to the ERM and ERM II systems, paying attention to the insufficient fiscal consolidation for the determinants of the economic policy implemented under this exchange rate mechanism. Difficulties related to lowering inflation in ERM II and factors increasing the risk of joining the monetary union with an overvalued exchange rate were indicated. Moreover, the consequences of the participation in the euro area, caused by insufficient fiscal consolidation and delays in structural reforms before the adoption of the single currency, are also presented.

When it comes to Greece, I also studied: Rozkrut M., Woreta R. (2005) *Successes and failures of Greece on its way to the euro area Conclusions for the new EU countries*; Toscer O. (2013), *Greece- European Achilles Heel*, Mroczek K., Więcek A. (2013), *The economic crisis in Greece and Spain and its effects in terms of sectors*. All these papers gave me a better understanding of the Greece crisis and a better overview.

Study of Trzcńska A. (2013), *The European Stability Mechanism as a stabilizer in the planned financial union*, Foreign Department, Polish National Bank, presents the role of the European Stability Mechanism (ESM) in the context of planned reforms aimed at deepening integration within the Economic and Monetary Union. Particular attention was paid to the adequacy of the Mechanism as a stabilizer at each of the proposed stages of changes leading to the creation of the financial union, understood as the last stage on the way to a full (real) Economic and Monetary Union, i.e. including the banking, fiscal and economic union, as well as operating on the basis of for democratic legitimacy.

3. METHODOLOGY

The way how I would like to approach this problem is to compare data for countries that joined the eurozone, including Poland. It is commonly known that GDP per capita is gross domestic product divided by population. Annual growth rate GDP is the annual growth rate of real Gross Domestic Product (GDP) per capita is calculated as the percentage change in the real GDP per capita between two consecutive years. Data for GDP has been taken in current U.S. dollars. The annual growth rate is in percentage. From my point of view, it is the the best indicator which will show us the behavior of growth for countries with their own currency and euro. It is also important to understand certain cases and the historical background. The countries which I have chosen to the analysis are Greece which joined the eurozone in 2002, Slovak Republic which joined the eurozone in 2009 and Estonia which joined the eurozone in 2011. We will also take into consideration Poland, country which joined the European Union in 2004 but still keep its own currency.

After this part I will explain polish example in the chapter which title is 'Positive aspect of keeping own currency - Polish case' and the other side of the coin in the chapter which is titled 'Positive aspects of joining eurozone / Negative aspect of keeping own currency'. After this I will present more details for better understanding of Polish and Greece economies during financial crise in 'Negative aspect of joining to eurozone for some countries - Greece case'.

4.1 DATA ANALYSIS

In this section GDP per capita and annual growth rate will be analyzed. I am presenting these data and showing how countries (that joined the eurozone including Poland) behaved during a crisis by checking these two indicators. It will show the path for my research and if some countries will require deeper analysis - I will do it during the next section.

Starting with **Greece**, it joined the eurozone on the 1 January 2001 but it has been in the European Union since 1 January 1981. Below we can see the data for Greece from 2004:

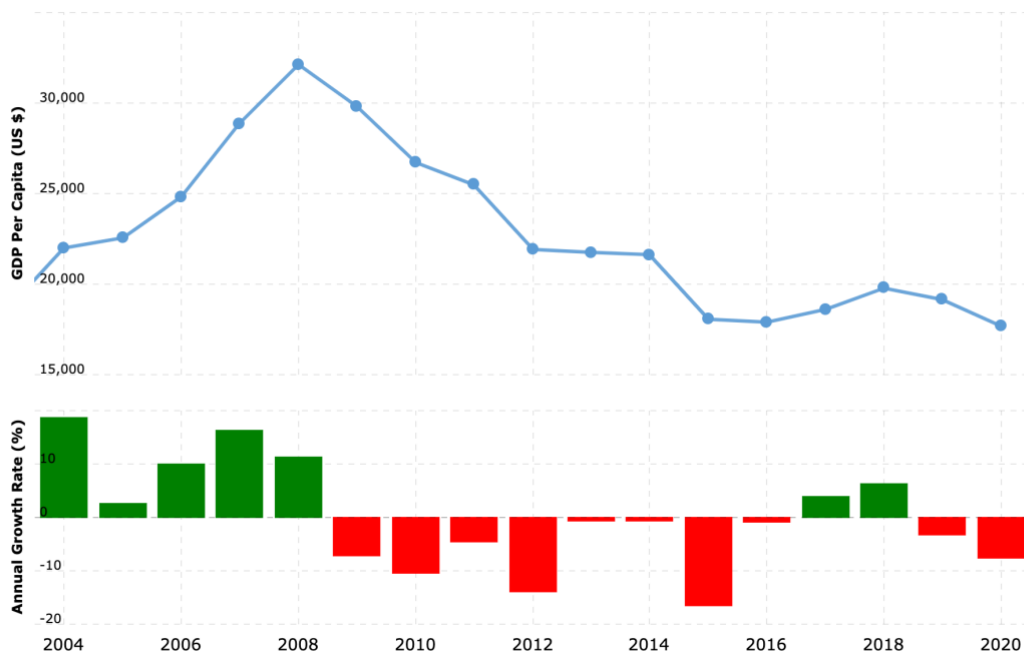


Figure 1: GDP per capita & annual growth rate – Greece

Unfortunately for Greece, we can see that during finance crisis the GDP per capita decreased which led to negative values for annual growth rate for 2009-2017. Greece's bad condition combined with the loss of confidence by investors resulted in a deep financial crisis. This matter will be analyzed in chapter 4.2.3

Next country which I will take into consideration is **Slovak Republic** which joined the eurozone in 2009 so the data is from 2009 too. At this time, we can see the growth for GDP per capita and for ‘annual growth rate’ as well positive effect till 2011.

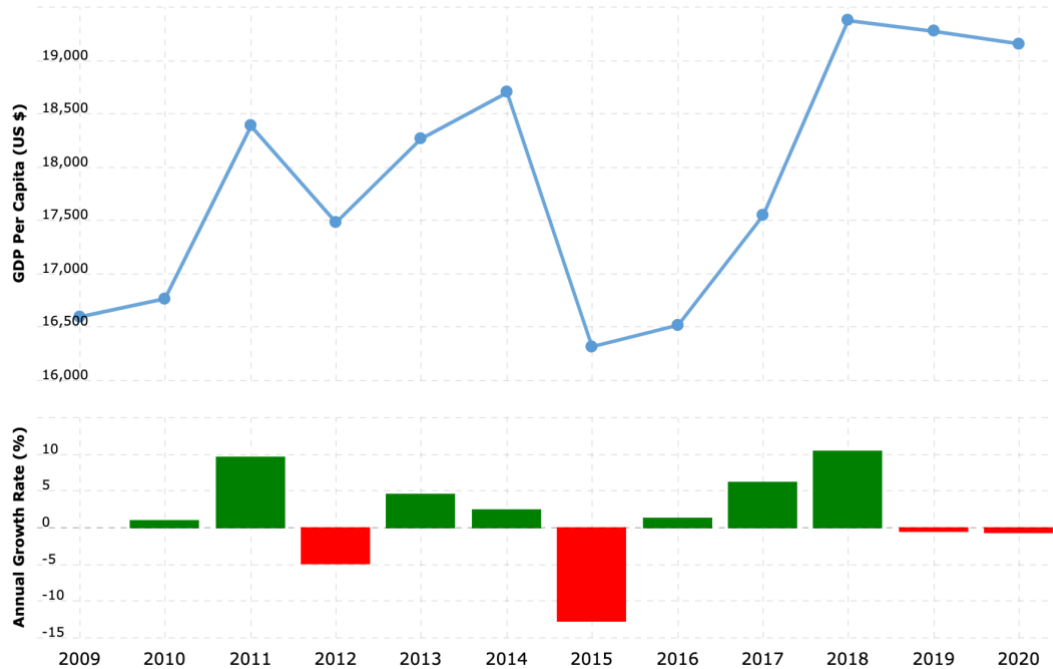


Figure 2: GDP per capita & annual growth rate – Slovak Republic

The Slovak Republic joined the European Union on 1 May 2004 on the basis of the Treaty of Accession, thus committing itself to adopt the common currency. Less than five years later, Slovakia became a member of the euro area, giving up its national currency and reducing its competencies in the conduct of monetary policy. The adoption of the single currency coincided with the outbreak of the international economic crisis, which the Slovak economy, like other member states of the monetary union, had to face.

During the first 10 years of operation within the European Union, the structure of the Slovak economy underwent a significant transformation. These changes were determined by three main factors: economic policy, membership in the European Union and the euro area, as well as the impact of the global economic crisis. Slovakia is a developed country and its economy is based on industry and agriculture. Two basic areas can be distinguished in the industrial sector of the country. The first group includes the textile, leather, wood, and chemical industries, and these are industries that develop very slowly or not at all. The second group includes the sector of means of transport, electrical, machinery, optical, and rubber industries, and these industries show a very fast pace of

development. Slovakia counteracted the effects of the crisis by returning to the path of economic growth despite problems with rising unemployment. This happened due to the very large impact on the Slovak economy of foreign capital, with the main investors which are the Netherlands, Germany, and Austria which are much more productive than Slovak companies.

The adoption of the common currency creates complex, multidimensional interdependencies both in terms of its positive effects which is, for instance, increase in the volume of exports and imports and negative ones, *inter alia*, faster transmission of price increases. For Slovakia, which is a small economy trying to achieve the level of development of the richest EU countries, joining the euro area was associated with significant changes in the economic policy in the macroeconomic dimension. In the period of preparations for entering the euro area, economic growth was recorded, stimulated by lower costs of financing public debt. There was also a reduction in currency risk, which was practically offset by the application of the European exchange rate mechanism. As a result of the Slovak government's decision on the earlier privatization and liberalization of the financial sector, the introduction of the euro reduced barriers to access to credit for companies and consumers. The international financial crisis in 2009 slowed down the growth of Slovakia's Gross Domestic Product. Moreover, in the peripheral economies of the euro area Member States, the crisis led to a deterioration in access to international financial markets due to possible liquidity problems in the public and banking sectors.

The level of interconnection of business cycles in Slovakia and the euro area is slowly decreasing. Despite a significant appreciation of the real exchange rate in the run-up to the euro adoption, Slovakia was one of the most competitive new Member States.

The introduction of the euro is often associated with a slight increase in prices, especially for everyday products and services. This influences the perception of the general increase in prices among consumers, although the inflation effects remain relatively small. A similar phenomenon was expected as a side effect in Slovakia. However, the deflationary effects of the financial crisis, related primarily to the decline in demand, consequently lowered inflation in Slovakia in 2009–2011. Inflation picked up again in 2012 as a result of rising energy and food prices, increased tax burdens, and an increase in administrative prices. Another inflationary pressure was related to the economic revival, which in turn

resulted in a deterioration in the competitiveness of Slovak exports compared to foreign sales of other Member States significantly subsidizing their sales.

The introduction of the euro in Slovakia influenced the economic cycle, leading to the creation of the GDP gap and an increase in the level of an unemployment.



Figure 3: Slovakia inflation rate & Slovakia unemployment rate

In that part I am going to focus on **Estonia** which joined the eurozone in 2011. It will be appropriate to say that the experience of Estonia's preparation for adopting the single currency should be more appreciated and used in countries that are trying to join the euro area. The Estonian economy was at a much lower level of economic development than the euro area Member States, but the rapid pace of economic growth before 2008 crisis reduced this gap. The good business environment has resulted into an acceleration in the development of the Estonian economy, as Estonia is one of the most liberal economies in the world with a high degree of openness. Each economic slowdown in countries that are the main trading partners has a very strong impact on the condition of the Estonian economy.

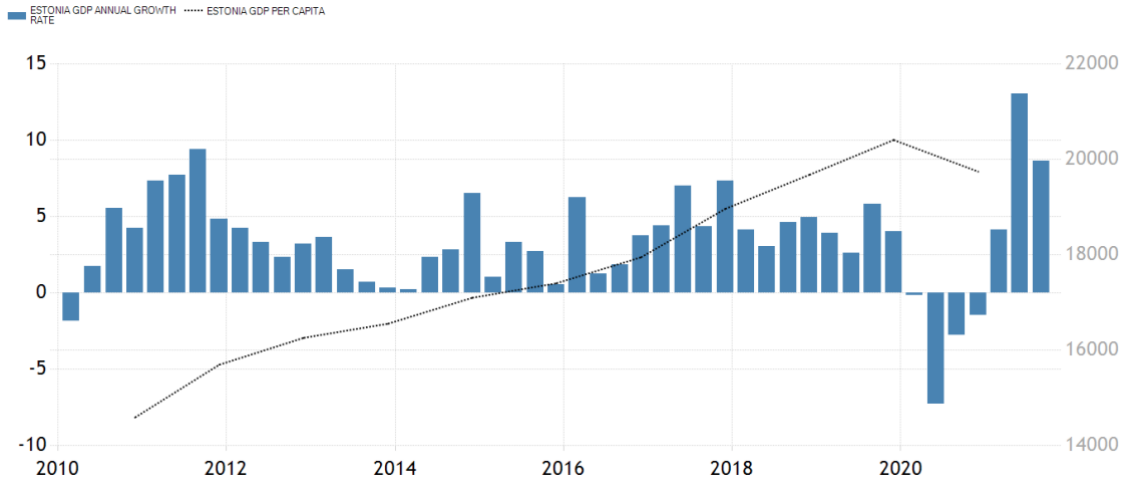


Figure 4: GDP per capita & annual growth rate – Estonia

During the economic crisis in Estonia, there was a very strong decline in production, which resulted in a strong decline in employment and an increase in unemployment. Additionally, the crisis slowed down the rapid pace of price growth. The factor determining the inflationary processes in Estonia was the Currency Board mechanism, which deprived the authorities of this country of the possibility of conducting an autonomous monetary policy. Long-term reference to the currency board mechanism in Estonia was possible through the implementation of a restrictive fiscal policy, which resulted in maintaining a low level of public debt both in the years 2004/08 and 2008/11.



Figure 5: Estonia Inflation rate & Estonia government debt to GDP

Estonia's problem was the pre-crisis current account deficit and financing with foreign loans. The reports on the convergence of the European Commission and the European

Central Bank, published on 12 May 2010, allowed Estonia to start the process of introducing the euro. When assessing the price stability criterion, the Commission expressed concerns about the fulfillment of this criterion, which amounted to HICP = 1%, and in the period from April 2009 to March 2010, the Estonian average monthly index. The HICP inflation rate was - 0.7%, which was clearly below the reference value. The assessment of the degree of compliance with the fiscal criterion was positive, in 2009 the deficit amounted to 1.7% of Estonia's GDP. The gross public debt to GDP ratio amounted to 7.2% and was well below the reference value of 60% of GDP. The criterion of the ERM II mechanism did not raise any objections either, as in 2009 Estonia did not have a developed bond market in Estonian currency and the level of public debt was low. Concerns about the price increase turned out to be right, as after the introduction of the euro, the HICP increased by 0.4% in January 2011 from -0.2% to + 0.2%. In the process of Estonia's accession to the euro area, it should be noted that careful preparatory activities allowed for the smooth introduction of the euro into circulation. This mainly concerned the high scale of early supply of euro coins to retailers, including the provision of ready-made euro coin sets as part of this sub-frontloading process. The early start of currency exchange in commercial banks was also important, and additionally the inclusion of post offices in this process, which made it possible to reach rural areas with the new currency. An important element was also the involvement of representatives of important circles in the country and the implementation of extensive information and education activities, which significantly influenced the understanding of the process and its efficient conduct. Particularly important activities aimed at increasing consumer confidence in the new currency translated into the implementation of an agreement on fair prices and their transparent monitoring, commissioned by the European Commission. Through prior, appropriate, and planning information and education activities, the risk of negative attitudes of Estonian citizens at the time of the upcoming changes was reduced, and thus the public confidence in the entire process was increased. This is valuable information for countries with a derogation that the primary goal in the process of introducing the euro is to build confidence in the new currency through extensive information and education for all citizens.

Next part of this chapter will be dedicated to **Poland** which has never joined the eurozone. Poland increased GDP per capita since we joined the European Union, which also had positive results for the annual growth rate. The financial crisis was not as strong as it was in most of the countries in the European Union.

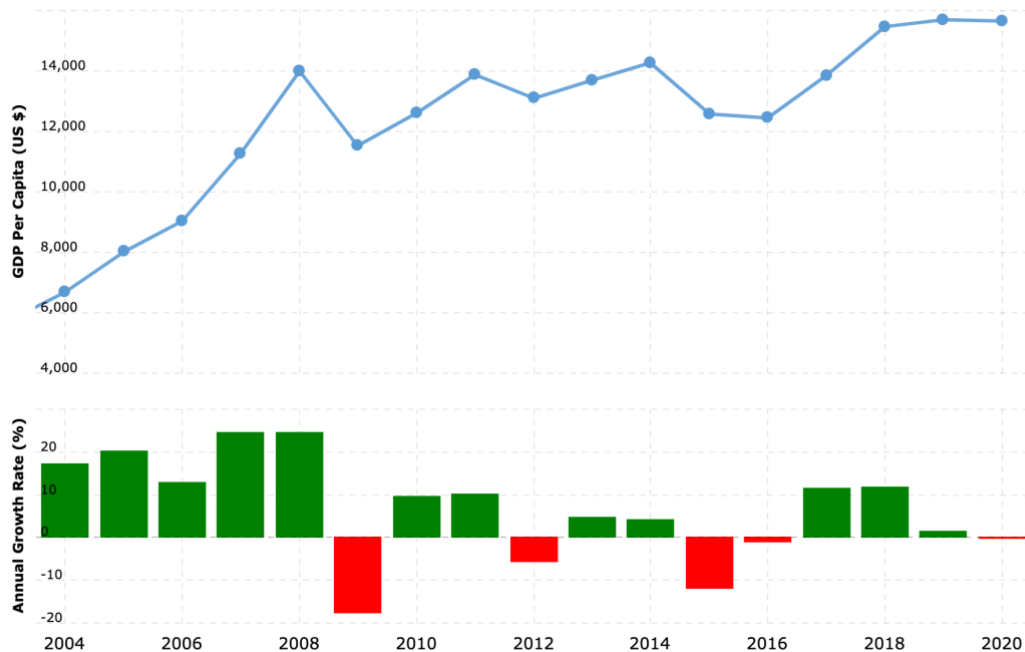


Figure 6: GDP per capita & Annual growth rate – Poland.

The Polish economy survived this period, avoiding recession, but at the cost of a significant reduction in the dynamics of economic growth in 2009. This matter will be analyzed in chapter 4.2.1.

4.2 EURO ZONE AND OWN CURRENCY

In this chapter, I will focus on the main question which all countries face while joining the European Union: whether it is better to join the eurozone or keep its own currency? I would like to show the reasons why EU countries as Poland have their own currency. The main problem I would like to address is the behavior and the mechanism which will be possible to obtain against the crisis. Then I will explain the positive aspects of joining the eurozone, which on the other hand is related to the negative aspect of keeping their own

currency. The next section will be dedicated to analyze why some countries may face issues when they join the eurozone and it will be presented on the example of Greece.

4.2.1. Positive aspect of keeping its own currency - Polish case

Poland joined the European Union on 16 April, 2003. From the beginning of this process, there was one big debate in Poland about what will happen with zloty. Economists and politicians were struggling: should Poland change the currency to the euro or keep the zloty? After more than seventeen years we still cannot answer this question directly because we do not know how the economy in Poland would be with the euro. The only thing we can see is the mechanism that is available with its currency. Now I will introduce the tools which are available for the country with its own currency.

A country with its currency can use monetary policy to stimulate the economy: combat inflation; raise and lower interest rates at any time and create a new monetary base. The Central Bank has this power with its currency. Sometimes during a banking crisis it is important to have these tools to avoid unexpected consequences for the economy as unemployment, a decline in aggregate demand, shocks in the financial markets, etc.

It is very crucial to mention that during the great crisis in Poland, the effects of the crisis were felt to a much lesser extent than in other European countries. In the first months of the crisis, also Polish banks, fearing a decline in real estate prices, significantly reduced their lending. In turn, the Monetary Policy Council significantly reduced interest rates (including the deposit rate from 4.50% in 2008 to 2.00% in 2013).

In the second quarter of 2009, Poland's GDP, seasonally adjusted, increased by 0.5% compared to the first quarter of 2009 and it was 1.4 % higher than in the second quarter of 2008. Poland was the only one country in the European Union to record GDP growth in this period. The contemporary Prime Minister, Donald Tusk, together with the former Minister of Finance, Jacek Rostowski, boasted at a specially convened press conference on the Stock Exchange on 29 may 2009, that Poland is a 'green island' in the Europe which has permanently entered the language of Polish politics.

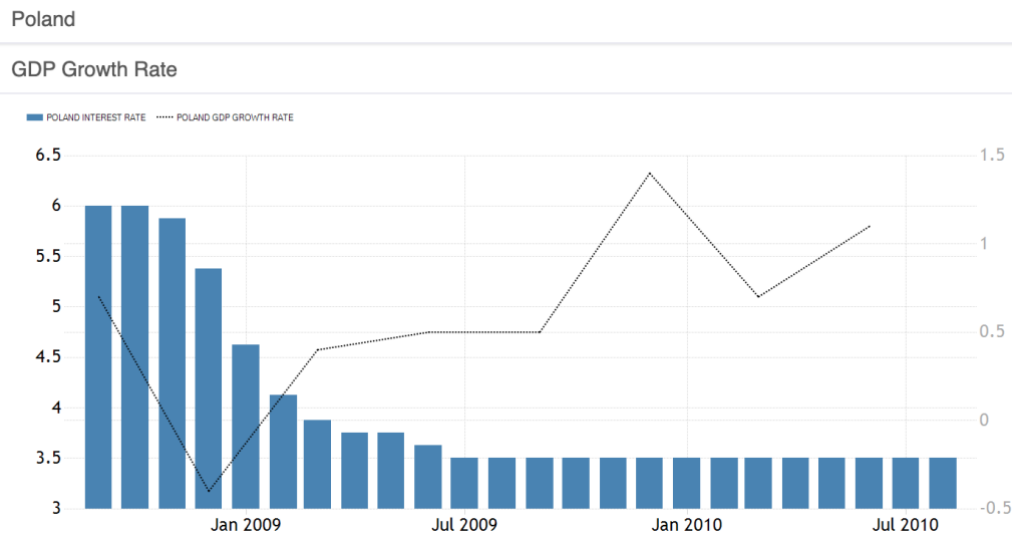


FIGURE 7: Graphic illustration for Polish GDP Growth Rate and polish interest rate

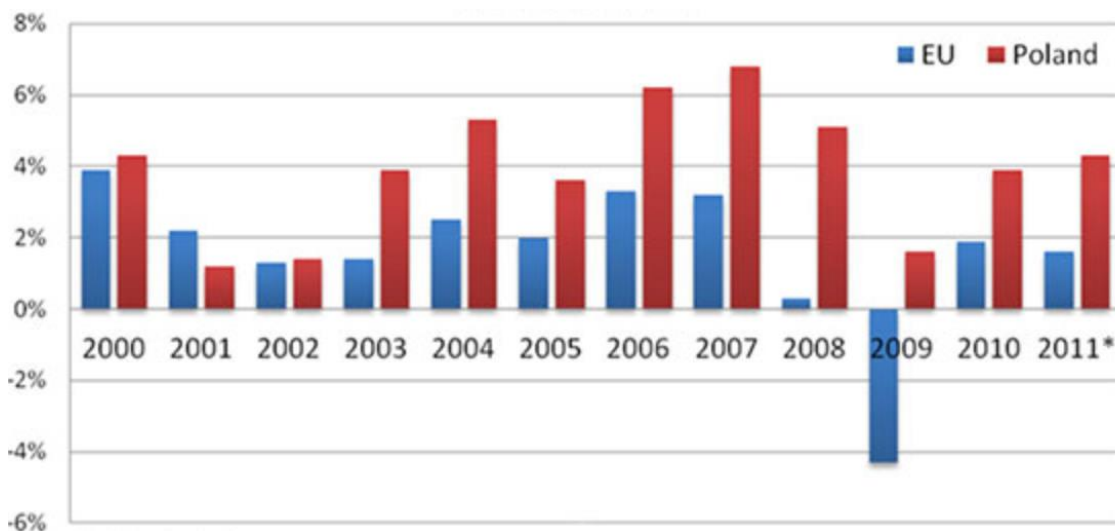


Figure 8: GDP changes in the EU and in Poland between 2000 and 2011

Despite Poland's goal to join the euro area, its own currency and floating exchange rates helped to enhance Polish export during the recession. Strong Polish currency during the period of high oil prices between 2007 and 2008 prevented the economy from increasing costs of production and made imports cheaper. These factors were the reason why we can see as good results for polish economy as we can see above.

4.2.2. Positive aspects of joining eurozone / Negative aspect of keeping own currency

In this chapter I will explain the negative part of having own currency which will automatically explain the positive side of joining the euro.

As a first step, I would like to explain the potential benefits of joining the Eurozone. Without a doubt, we can see obvious benefits for citizens, businesses, and economies in countries that have adopted the single currency. These benefits include:

1. The ease of comparing prices across countries, which promotes competition between businesses and thus benefits consumers.
2. Price stability.
3. The common currency makes it easier, cheaper, and safer for countries in the euro area to buy and sell goods and services, and easier to trade with the rest of the world.
4. Improved economic stability and a positive impact on economic growth.
5. Better integrated and thus more efficient financial markets
6. Greater influence in the world economy.
7. The euro is a tangible symbol of European identity.

Based on the above, there is, therefore, an argument that Poland would have much to gain from switching to the euro, as transactions with foreign entrepreneurs would be easier for businesses in Poland. Year after year, trade with foreign countries is growing steadily, which consequently accentuates the exchange risks and potential losses resulting from currency conversion. Therefore, it is easy to see that the above arguments are in favor of the introduction of the euro.

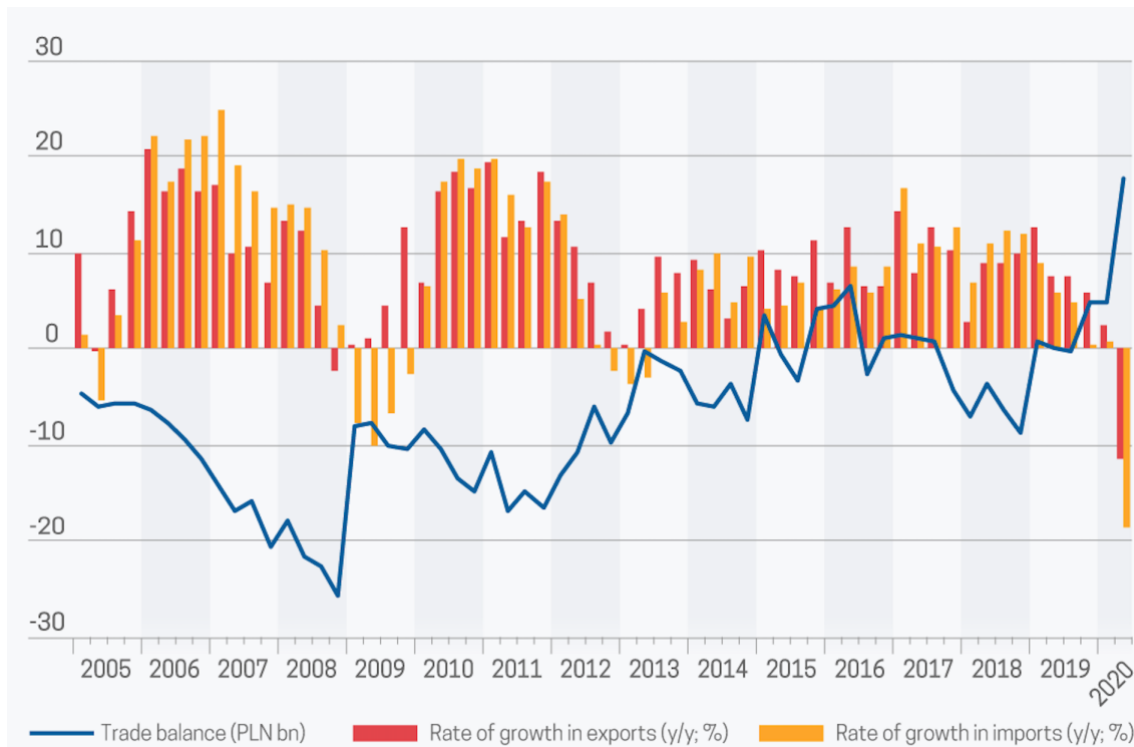


FIGURE 9: Poland's balance and the rate of growth in trade and goods(quarterly data).

Natalie Chen and Dennis Novy, researchers from the UK's University of Warwick, have published an article, "Currency Unions, Trade and Heterogeneity." In this paper, they conclude (using a sample of 199 countries around the world; data from 1949-2013) that participation in a currency union increases trade by an average of 38%. The researchers draw attention to the word "average" in which the heterogeneity is hidden and the fact that the effects of a currency union vary depending on the specific countries that trade with each other within it. If a country is a small economy and imports a lot (Poland is one of them) then the effects of strengthening trade will be moderate for them. Therefore, it is likely that in the case of Poland, the increase would not be as visible as in other countries.

In the article "*The impact of monetary integration on trade in goods in times of economic crisis*" the authors examined whether the economic cooperation of member states is positively influenced by membership in the euro area. They applied a gravity model on panel data. In addition to the standard variables, we introduced variables representing monetary integration for them. At the same time, to show the impact of the current economic crisis on world trade, they used the division of the study period into sub-periods, one of which was 2008-2009 representing just the host crisis. In the empirical

test of the gravity model, they obtained results consistent with the expected ones both in the study of the impact on the level and on the dynamics of change in exports.

In contrast, the effect of monetary integration on the level of exports in the euro area turned out to be negative. The case of the effect of monetary integration on the dynamics of export change is quite different.

4.2.3. Negative aspect of joining to eurozone for some countries - Greece case

Joining the Eurozone has two sides to discuss and analyze. Some countries can see the great opportunity to develop the economy and increase GDP but, in some cases, it can also make more concerns than their own currency. In this chapter, we will see the Greece case and the consequences of joining the Eurozone.

4.2.3.1 Historical background

Greece should be considered a country where the lack of appropriate reforms has led to serious imbalances in the economy, limiting the benefits of adopting the single currency. Symptoms of the deteriorating state of the Greek economy could be seen even before the country joined the single currency area.

Greece became a full member of the Economic and Monetary Union on 1 January, 2001. Nowadays it is believed that Greece should not have been admitted to the Eurozone at all. The difficult economic situation of the country could be observed even before it acceded to the Eurozone. The main reasons for Greece's declining international competitiveness and the poor state of its economy are considered to include: 'the preferential treatment of state-owned enterprises over the private sector, the rigidity of the labor market, the structure of the social security system that supports the excessive development of small business, and the lack of institutional and legislative transparency'.²

The social system in Greece was very expensive. It did not motivate citizens to pay more than the minimum contributions because the benefits of doing so were very small. Greeks were retiring very early, so the labor supply was decreasing and the budget burden was

² Polish Ministry of Finance (Kryzys grecki - geneza i konsekwencje, 2010, s. 3)

increasing at the same time. Self-employment increased systematically due to the difficulty of collecting social contributions from the self-employed. Moreover, Greece was unable to establish an effective tax enforcement system.

The wage indexation system introduced in 1982 also harmed the economy, contributing to growth of unemployment. It was supposed to lead to a narrowing of the income gap in society. However, it resulted in an excessive increase in wages of inexperienced and unskilled workers with relatively low productivity to the salary they received. Employment costs were high, and the disproportionate wages in this occupational group made businesses reluctant to hire more workers. Gradually, the rules of the indexation system began to be loosened, as it was noticed that it was unfavorable. In 1992 it was completely abolished.

The Greek economy was also constrained by other labor regulations, including the high cost of layoffs and employee turnover. The contractors were reluctant to hire new people during good times because of the costly redundancy in case of an unfavorable change in the economic situation. The Greek labor market remained the most regulated among the countries of the Organization for Economic Co-operation and Development.³ Until 1993, commercial banks were obliged to purchase treasury debt instruments. At the same time, they were obliged to allocate 75% of the funds corresponding to the value of their accumulated deposits to finance the state's preferred activities, of which 40% had to be invested in the purchase of treasury bills (Greek Crisis - Genesis and Consequences, 2010). The money obtained from the sale of securities was used to finance unprofitable state companies operating in declining industries. Similarly, the supply of credit to private institutions was falling, which resulted in their projects being pushed out by inefficient state state-owned enterprises. The low pace of privatization helped to maintain this state of affairs.

Between 1981 and 1990, Greece was the only country in the European Union where fixed capital formation declined instead of growing, averaging 0.4% per year⁴. It also should be noted that Greece had a very negligible inflow of foreign investment, which slowed

³ Marek Rozkrut and Rober Woreta(2005) - Sukcesy i porażki Grecji na drodze do strefy euro. Wnioski dla nowych krajów UE. (Successes and failures of Greece on its way to the euro area. Applications for new EU countries)- Page 12.

⁴ Marek Rozkrut and Rober Woreta (2005) - Sukcesy i porażki Grecji na drodze do strefy euro. Wnioski dla nowych krajów UE. (Successes and failures of Greece on its way to the euro area. Applications for new EU countries)- Page 13.

down its development. This was caused, among other things, by the lack of transparent rules and unclear administrative procedures, and underdeveloped infrastructure that made it difficult to do business. Greece's macroeconomic policies, aimed at ensuring political gain instead of striving for stability and sustainability, also contributed to this. Consequently, all these factors led to the Greek industry being underdeveloped and not internationally competitive. This was reflected in a widening deficit of trade in goods.

4.2.3.2 Controversies in the introduction of Greece to the euro area

The issue of Greece's admission into the Eurozone is still controversial today. Analysts agree that one of the causes of the crisis was the admission of Greece into the Eurozone, despite being in complete compliance with the Maastricht convergence criteria. In its 2000 convergence report, the European Commission gave a positive assessment of Greece's situation of Greece. The report indicated that⁵:

1. The interest rate criterion was met. The average long-term interest rate for the 12 months preceding the assessment was 6.4%, below the reference value of 7.2%.
2. Greece has fulfilled the inflation criterion since December 1999. It stood at 2.0% in March 2000. March 2000 was 2.0%, 0.4% points below the reference value (Decreasing of inflation was short-lived. The inflation rate exceeded its reference value already in October 2000).
3. The general government deficit was reduced from 10.2% of GDP to 1.6% of GDP in four years, and the deficit is projected to remain below 3% of GDP thereafter.

⁵ The Greek Crisis Origins and Consequences, 2010, pages 7-8

4. Greece participated in the ERM⁶ and ERM II⁷ mechanisms for more than two years (until December 2000). Exchange rate fluctuations during this period were considered to be in line with the requirements of the Maastricht Treaty.
5. Greece's public debt has not been reduced below the 60% of GDP reference level. In view of the declining debt and the prospect of this trend continuing in future years, the debt criterion was considered to be met.

In 2004, the reported statistical data were revised. It turned out that the Greek government deficit prior to joining the euro area was significantly above the maximum of 3 % of GDP.

The European Union and the new Greek government have begun to suspect that statistics in Greece were falsified. A report prepared by the Greek Finance Ministry pointed out that previous governments had resorted to creative accounting and had effectively hidden the real size of the deficit through financial transactions. One such deal was with Goldman Sachs bank, which offered Greece a complicated trade. Greece got money that allowed it to reduce its budget deficit in exchange for revenues from airport fees. Subsequent Greek governments made many similar deals which allowed them to reduce the deficit and shift the debt into the future. The first disclosed contract to hide debts dates back to 2001 after Greece joined the eurozone. Many economists and politicians suspect that such deals were made earlier and that is why Greece managed to get into the Eurozone. The former Greek prime minister as well as other Greek politicians in power at the time deny that there was any such fraud.⁸

Analysts agree that the EU leaders should not have brought Greece into the Eurozone. As Otmar Issing (chief economist at the Bundesbank from 1990 to 1998) said: 'In 1998 Greece could only dream of the Euro, no one believed in such a scenario'⁹. Yves-Thibault de Silguy who held the position of European Commissioner for the Euro from

⁶ ERM - European Exchange Rate Mechanism- a mechanism of mutual stabilization of the currencies of the member states of the European Economic Community.

⁷ ERM II - The European Exchange Rate Mechanism (ERM) II is a system introduced by the European Economic Community on 1 January 1999 alongside the introduction of a single currency, the euro (replacing ERM 1 and the euro's predecessor, the ECU) as part of the European Monetary System (EMS).

⁸ Kozieł H. (2012), Wysokie koszty nieuzasadnionej pobłażliwości, Rzeczpospolita. (High costs of unjustified indulgence)

⁹ Toscer, 2013 Greece- European Achilles Heel.

1995 to 1999 had a similar opinion¹⁰: ‘It was clear that Greece would never meet the conditions. Especially those related to inflation and public debt’ How was it possible that the budget deficit suddenly started to shrink and in less than two years Greece achieved an economic miracle? It only succeeded through creative accounting and questionable deals with Goldman Sachs. On 19 June 2000, the European Council decided to admit Greece to the Eurozone. The European Union had a specific goal in mind. It wanted to expand the monetary union so that it could compete more effectively with the American dollar. This state of affairs was supported by France, which did not want the currency union to be dominated by Germany. The European Central Bank did not object either, although it was reluctant to entertain the idea of Greece joining the eurozone. It seems that it should have protested strongly on this issue, perhaps one of the biggest financial crises in history could have been avoided.

4.2.3.3 The course of the crisis.

Discovery of the state of Greek finance

Since 2002, when the euro came into cash circulation, Greeks have systematically have gone into debt, spending the money on current consumption instead of on investment that could have boosted the Greek economy. Wages in the public sector have doubled.

In October 2009 it was revealed that the general government deficit will be 12.7%, not the 3.7% assumed in April 2009 or the 8% assumed in September 2009. Finally, in 2010, Eurostat indicated that Greece's deficit in 2009 was 13.6% of GDP¹¹. The revision of the data by as much as nine percentage points was a shock. So far, any EU country had shown such a discrepancy. Investors and creditors realized that Greek statistics had been falsified for years. The reaction to this information was the downgrading of credit rating agencies, which led to a drop in the value of Greek assets in the financial markets. As a result of the downgrades by the agencies S&P, Fitch and Moody's, Greek bonds have

¹⁰ Toscer, 2013 Greece- European Achilles Heel.

¹¹ Mroczek, Więcek 2013, p. 64 The economic crisis in Greece and Spain and its effects in terms of sectors,

been dubbed "junk". The risk of Greek bankruptcy contributed to the deterioration of the capital situation and reduced liquidity in the Greek banking system. Deposits began to be withdrawn from banks in large numbers, both by foreign investors and Greek citizens. The high risk of Greek insolvency contributed to an increase in the cost of borrowing for Greece. Greece fell into a debt spiral. The European Union had to come up with a plan to give a way out of this situation. Considerations included¹²:

- **Exclusion of Greece from the Eurozone.**

A voluntary departure of Greece from the Eurozone would entail arrangements for the following:

- the transfer of monetary policy competencies from the ECB to the national central bank,
- the return to the national central bank of its share of the ECB's capital and the euro area's foreign reserves,
- the creation of a new currency, the reintroduction of the drachma, or the adoption of an international currency other than the euro.

Monetary union provides cushioning for member states with high government debt. Greece had no economic incentive to abandon it.

- **Lead to the "bankruptcy" of Greece.**

The impact of a Greek default would be losses on creditor accounts and the need to significantly improve the budget balance in the short term. As a result of the loss of confidence in Greece, international transfers would be reduced. The flow of foreign funds to Greek businesses would be impeded, limiting their growth. A Greek default would threaten to collapse the stability of the European Union's financial sector.

- **Providing financial support to Greece.**

In the end, this third option was decided upon. The "bankruptcy" of Greece would entail entailing large financial losses for the rest of the European Union and would undermine

¹² The Greek Crisis - Origins and Consequences, 2010, p. 19

the financial stability of the Eurozone. Today's financial systems are highly integrated with each other, so a crisis in one country affects the others.

Financial assistance provided to Greece by the European Union and the IMF

Greece received financial aid from the European Union and the International Monetary Fund. However, it had to commit to a series of reforms that were supposed to balance the financial system in the long run and bring the budget deficit level down from 13.7% of GDP to below 3% of GDP in 2014¹³. Greece also pledged to reform the pension system, strengthen the institutional framework of public finance, and improve the competitiveness of the Greek economy. Other reforms were to include reorganizing the public administration, making changes to rigid labor market regulations, improving the investment climate, rationalizing the operations of state-owned enterprises, and improving the use of funds from the EU¹⁴. The austerity measures of the government caused numerous strikes, riots, and dissatisfaction of citizens however the government was obliged to implement them in order to receive financial aid.

Under an agreement reached in May 2010 between Greece and the EU European Union and the International Monetary Fund, Greece was granted a €110 billion loan under the so-called "first aid program" (€80 billion was made available by the European Commission and the remaining €30 billion by the International Monetary Fund). This amount was to be disbursed in tranches from May 2010 to June 2014, as the approved reforms were implemented. The main objective was to reduce the budget deficit from 13.7% of GDP to below 3% of GDP in 2014. This was to be achieved through, among other things, pension cuts, staff reductions, and reductions in the public sector and health care wages. Greece was required to balance its trade, stabilize its banking sector, reduce the cost of local administration, and make it easier to set up businesses. The program also included a reduction in public debt starting in 2014. The implementation of this program

¹³ Mroczek, Więcek 2013, p. 64 The economic crisis in Greece and Spain and its effects in terms of sectors,

¹⁴ Mroczek, Więcek 2013, p. 64 The economic crisis in Greece and Spain and its effects in terms of sectors,

was to be monitored quarterly by experts of the so-called "Three", i.e., the European Commission, the European Central Bank, and the International Monetary Fund.

However, it turned out that the funds from the first aid program were not sufficient. On 14 March 2012, the International Monetary Fund and Eurozone finance ministers approved a second aid package for Greece of 164.5 billion euros. 144.7 billion euros came from the European Financial Stability Facility - an aid fund that began its work in 2010. The remaining amount of 19.8 billion euros was to be covered by the International Monetary Fund. As in the case of the first aid program, the amount was divided into installments to be paid from March 2012 to December 2014, as the goals set for the Greek government were met. In addition to the main objective set for the Greek government, namely fiscal consolidation, the requirements of the "Three" were mainly to improve competitiveness, reduce the unit cost of employment by making the labor market more flexible, privatize, and, as in the case of the first-aid package, streamline public administration in order to carry out reforms more efficiently.

In November 2012, the Eurogroup, and the International Monetary Fund decided to reduce the cost of servicing Greece's loans and extend their maturity. As a result, between 2010 and 2014, Greece received 240 billion euros in aid, which saved it from insolvency. In January 2015 the left-wing Syriza party, which until then had been in opposition, won. This was a manifestation of Greek citizens' dissatisfaction with the pursuit of austerity policies. The party in its program strongly advocated against the policy of "belt-tightening". At the end of January, Greek Finance Minister Yanis Varoufakis announced that he would break off cooperation with the "Three" auditors.

The interest rate on Greece's 10-year government bonds on 1 April 2015 was 13%. A day earlier Standard & Poor's downgraded Greece's rating by one notch, from "B minus" to "CCC plus" with a negative perspective. According to the agency, Greece will not be able to honor its financial obligations "without deep reforms or further financial assistance". What is more, the amount of public debt relative to GDP in 2014 is almost 175% of i.e. 350 billion euros. Assuming a 3% GDP maintenance primary surplus Greece would need more than 58 years to repay the entire debt if we consider time from 2015.

4.2.3.4. Establishment of the European Stability Mechanism in response to the crisis in the euro area

In May 2010, in response to the spreading financial crisis, the ECOFIN¹⁵ Council decided to establish a temporary European stabilization mechanism consisting of¹⁶:

- The European Financial Stability Facility (EFSF) providing support exclusively to euro area countries financed by issuing debt instruments guaranteed by euro area countries.
- European Financial Stabilization Mechanism (EFSM) raising funds on financial markets (by the European Commission) through the issuance of debt instruments guaranteed by the EU budget.

However, it turned out that there was a need to create a permanent mechanism for restoring the financial stability of euro area economies. In December 2010, the European Commission decided to create the European Stability Mechanism, which was to replace the temporary EFSF and EFSM in the future. To create the European Stability Mechanism (ESM) it was necessary to amend the Treaty on the Functioning of the European Union (TFEU).¹⁷ In March 2011, a third paragraph was added to Article 136 of the TFEU, which allowed euro area countries to establish a stability mechanism to protect the stability of the euro area. According to this provision, the provision of possible financial support is subject to strict conditions. The ESM was inaugurated on 8 October 2012 during its first Board meeting. The main task of the ESM is¹⁸ ‘to raise funding and offer support, subject to strict conditionality adapted to the form of the assistance, to euro area countries experiencing, or at risk of, severe financial distress, when this is necessary to protect the financial stability of the euro area as a whole and its members. Thus, similar

¹⁵ ECOFIN -Economic and Financial Affairs Council

¹⁶ Trzcińska, 2013, p. 11 The European Stability Mechanism as a stabilizer in the planned financial union

¹⁷ Trzcińska 2013, p. 10 The European Stability Mechanism as a stabilizer in the planned financial union

¹⁸ Trzcińska, 2013, p. 17 The European Stability Mechanism as a stabilizer in the planned financial union

to IMF¹⁹ support, the ESM offers assistance to euro area countries experiencing or at risk of experiencing disruptions to normal access to market financing or risk of such disruption. The ESM finances its operations by operations by raising funds in the capital markets.’

The ESM has the status of an international financial institution established by an intergovernmental agreement among euro area countries, so all countries using the euro currency are members of the ESM. The total capital of the ESM is €704.8 billion, consisting of:

- 80,5 billion euros of paid-in capital
- 624.3 billion euro of callable capital.

It is important to mention here that nowadays, if a country from European Union would like to join to eurozone then it need to be able to meet certain criteria, which I will present in the next section 4.2.4

4.2.3.5. Conclusions for Greece case

In the final analysis, Greece was not prepared to enter the eurozone. The problems of its economy could be seen even before 2000. Its main problems included labor market rigidity, costly social system, preferential treatment of state-owned enterprises, and lack of institutional and legislative transparency. Greece did not meet the Maastricht criteria. Despite this, the European Commission gave a positive assessment of the report on Greece's fulfillment of nominal convergence criteria and decided to admit Greece to the eurozone. As it turned out later, the statistics presented by Greece were falsified. Greece entered the Eurozone without any clear opposition from the European Union. After adopting the euro, the Greeks went into debt, using the money for consumption instead of investment. At the same time, they continued to present false statistics until 2009.

In 2009, the Greeks revealed the true statistics. It turned out that the Greek economy was in a very weak state and would not survive without help from the outside. It was decided to help Greece because its "bankruptcy" would be connected with big financial losses of

¹⁹ IMF- International Monetary Fund

other member states, and would undermine the stability of the financial sector of the eurozone and the entire European Union, and Greece itself did not want to leave the Eurozone. Greece received financial assistance from the European Union and the International Monetary Fund in exchange for promises of reforms to heal the Greek economy. So far, there have been two aid programs. In 2015, the leftist SYRIZA party came to power in Greece. It was a manifestation of the dissatisfaction of the Greeks who do not want to agree with the austerity policies. In connection with the deepening crisis in the eurozone, the European Union has decided to create a permanent mechanism to support countries in economic distress. Such a project is the European Stability Mechanism, which has the status of an international financial institution. Its total capital amounts to 704.8 billion euro and its task are to assist eurozone countries in financial trouble.

4.2.4 Difficulties for Poland for joining eurozone

Certain economic and legal conditions must be met for a country applying to join the euro area. The conditions for adopting the euro are set out in the Treaty on the Functioning of the European Union and consist of achieving sustained nominal and legal convergence. For this reason, they are referred to as convergence criteria and include:

- **The fiscal convergence criterion**, which means that a Member State must not be subject to an excessive deficit procedure at the time of the assessment (Article 126 of the Treaty on the Functioning of the European Union). The decision to impose this procedure is made by the Ecofin Council when the actual or planned general government deficit in relation to GDP exceeds 3% or the general government debt exceeds 60% of GDP. The sustainability of compliance with the criterion is assessed and, where the reference value is exceeded, whether the excess over the reference value is exceptional and temporary in the case of deficit, and in the case of debt, whether the pace of convergence towards the reference value is satisfactory.

- **The price stability criterion**, which stipulates that the average rate of inflation in a given country recorded in the one year preceding the survey does not exceed by more

than 1.5% points that of the three European Union member states with the most stable prices. Inflation is measured by the 12-month average value of the Harmonized Index of Consumer Prices (HICP) relative to the average value of that index in the immediately preceding 12-month period.

- **The interest rate criterion**, which requires that over a period of one year prior to the survey, the average nominal long-term interest rate shall not exceed by more than 2% points the average of corresponding interest rates in the three best performing Member States in terms of price stability.

- **Exchange rate criterion**, requires the national currency to participate in the European Exchange Rate Mechanism (ERM II) for at least 2 years. The ERM II mechanism consists in keeping currency fluctuations against the euro within certain limits (+/- 15%) around a certain fixed value (the so-called central parity). During this period, there can be no devaluation of the central parity against the euro at the member state's own request. For the criterion to be fulfilled, the foreign exchange market must also not experience severe tensions during the period under examination.

- **The legal convergence criterion**, which involves examining the compatibility of national legislation with Articles 130 and 131 of the Treaty on the Functioning of the European Union and the Statute of the European System of Central Banks and of the European Central Bank. It mainly concerns the compatibility of national central banks' objectives with those of the European System of Central Banks (ESCB), the independence of national central banks, the integration of national central banks with the ESCB and the Eurosystem, and the uniform spelling of the euro.

In addition, due to the ongoing institutional reform in the euro area and the European Union, countries such as Poland are required to make additional adjustments prior to the introduction of the euro, particularly legal adjustments (introduced by, inter alia, the two-pack, the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union). Similarly, accession to the recently established European Stability

Mechanism (ESM) will become an additional element of the euro area entry procedure, which will entail the payment of an appropriate capital contribution.

Poland now meets two of the four economic criteria necessary to adopt the euro, concerning public finances and long-term interest rates, according to the European Commission's convergence report assessing the EU's progress towards the eurozone.

According to the Commission, Poland does not fulfill the price stability criterion and the exchange rate criterion, and Polish legislation is not fully compatible with the Treaty on the Functioning of the European Union (TFEU).

The European Commission has published its Convergence Report 2020, which assesses the progress of non-euro area Member States in their efforts to adopt the single currency. It covers the seven Member States that are legally obliged to adopt the euro: Bulgaria, Czech Republic, Croatia, Hungary, Poland, Romania, and Sweden.

The report concludes that Croatia and Sweden fulfill the criterion on price stability (prices at a stable level and average inflation in the one year preceding the survey no more than 1.5% points above the level of the three EU countries with the lowest inflation); Bulgaria, the Czech Republic, Croatia, Hungary, Poland, and Sweden fulfill the criterion on public finances (they are not subject to an excessive deficit procedure at the time of the survey); Bulgaria, the Czech Republic, Croatia, Hungary, Poland, and Sweden fulfill the criterion on the convergence of long-term interest rates. None of these Member States fulfills the exchange rate criterion, as none of them meets the exchange rate criterion, as none of them, is a member of the exchange rate mechanism (ERM II) (at least two years of participation in the mechanism without severe tensions is required before joining the euro area).

5. CONCLUSION

In the case of Poland, the introduction of the euro could be a good decision. A European currency could introduce new opportunities and increase the country's wealth. However, for this purpose, we need to eliminate potential problems inside the country, bring a full balance in the budget, and prepare a certain amount of money in the budget that will help those who would not adapt to the new realities and, most importantly, Poland need to meet all the criteria that are necessary for joining to the euro. In the current situation, also taking into account the crisis caused by the pandemic, from my point of view it is better to stay with own currency in order to avoid additional turbulences that may arise when the new currency would be introduced in Poland. Especially in the Greece case, we can assume that when there are some problems inside the country and there is no stable situation in the world, economy changes in the currency can lead to unexpected results. In the near future it would be even harder to join the eurozone because this is more complex than before - not only from the economy point of view but also by new regulations. What is more, from the political perspective after the Greece case, public opinion is more divided for those who are more likely to change the currency in Poland and for those who vote against that. As it has been written in chapter 4.2.4 due to the ongoing institutional reform in the euro area and the European Union, countries such as Poland are required to make additional adjustments prior to the introduction of the euro, particularly legal adjustments. Taking all previous information into consideration makes the process more difficult to implement.

However, It is necessary to pay attention to the fact that with full optimization, consistency in monetary policy activities, and good preparation of the entire implementation process, Poland could gain a lot because transactions with foreign entrepreneurs would be easier, trade with foreign countries grows steadily from year to year. Therefore, it is easy to notice economic arguments in favor of Poland joining the euro area - not only the social ones. Unfortunately, during difficult times when the macroeconomic situation is unstable is better to wait with this decision and keep own currency, because the risk of changing currency is especially higher nowadays when we are facing the pandemic issue and we still do not know results of that.

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