

ACCESSION OF THE REPUBLIC OF CROATIA TO THE EUROPEAN ECONOMIC AND MONETARY UNION

Kandžija, Vinko; Tomljanović, Marko; Zekić, Matea

Source / Izvornik: **Zbornik radova Ekonomskog fakulteta Sveučilišta u Mostaru, 2017, 168 - 197**

Journal article, Published version

Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

Permanent link / Trajna poveznica: <https://um.nsk.hr/um:nbn:hr:192:374939>

Rights / Prava: [In copyright](#) / [Zaštićeno autorskim pravom.](#)

Download date / Datum preuzimanja: **2025-03-19**



SVEUČILIŠTE U RIJECI
EKONOMSKI FAKULTET

Repository / Repozitorij:

[Repository of the University of Rijeka, Faculty of Economics and Business - FECRI Repository](#)



Vinko Kandžija, Ph.D.

University of Rijeka, Faculty of Economics, Rijeka, Croatia
Libertas International University, Zagreb, Croatia
ECSA BIH, Mostar, Bosnia and Herzegovina
vinko.kandzija@efri.hr

Marko Tomljanović, Ph.D.

University of Rijeka, Faculty of Economics, Rijeka, Croatia
marko.tomljanovic@efri.hr

Matea Zekić

Zadar, Croatia

**ACCESSION OF THE REPUBLIC OF CROATIA TO THE
EUROPEAN ECONOMIC AND MONETARY UNION**

Abstract

European monetary integration is a long-term process which ended with the establishment of the European Economic and Monetary union in 2002. Entering in the last stage of integration and adopting the euro is significant step for the economies of member states. To participate in the EMU, member states need to fulfil certain criteria, known as the convergence criteria or Maastricht criteria, which essentially comprise the fulfilment of the price stability, financial stability and stability of exchange rates and interest rates. Considering nominal criteria, member states must accomplish real convergence which means they need to reduce development lagging after other EU members. This paper examines effects of euro adoption on entire European Union including Republic of Croatia. The effects of adopting the euro on Croatian economy are explored from microeconomic and macroeconomic aspect. Regarding the variety of positive, but also negative effects on Croatian economy which are analysed in this paper, it can be concluded that adopting the euro has a positive effect on Croatian economy, assuming the convergence criteria achievement and initiation of the structural reforms that will

reduce development disparities between Croatian economy and economies of the rest EU member states.

Keywords: *EMU, euro, eurozone, nominal convergence, real convergence, Republic of Croatia;*

JEL: F15

1. INTRODUCTION

The formation of the European Economic and Monetary Union (EMU) is the most important process in the international finance since the Bretton Woods agreement. Economic and Monetary Union has an impact on other countries too, not only on its Member States, and includes the coordination of economic and fiscal policy, a common monetary policy and common currency as well. Although all 28 member countries participate in the Economic Union, the majority of them (19) have made a "step forward" in the integration and have adopted the euro. The exchange rate fluctuations between the currencies of the Member States limit the mutual influence of the capital market and prevent the full functioning of the internal market. The process of the euro adoption requires the fulfilment of the nominal convergence criteria, but above all the achievement of optimal economic and social conditions, ie. real convergence. The problem of the research stems from the difficulty of the Republic of Croatia, primarily determined by the unfavourable economic situation in the process of fulfilling the criteria prescribed by the Treaty of Maastricht. Therefore, the aim of the research is to explore the theoretical cognition, present key characteristics and elements of monetary integration in Europe and to analyse state of the real and nominal convergence of the Republic of Croatia. The purpose of the research is based on the theoretical insights and conclusions obtained by the analysis of the convergence, identify the potential effects of the euro adoption on the Croatian economy.

2. THEORETICAL BASIS OF MONETARY INTEGRATION IN EUROPE

Economic and Monetary Union is the highest level of economic integration, and it represents a currency area within which currency courses of Member States are irrevocably fixed. Member States of monetary Union are losing control over the exchange rate, interest rates and money supply. Monetary Union is not related only to the introduction of the common currency, it also implies the harmonization of economic policies of the Member States, joint integration planning of the economies of countries, stimulating economic growth and job creation (Vujčić, 2003.). The creation of Monetary Union in Europe is motivated by the internal and external reasons. According to Wisser and Smits (1994) the most important internal reasons are removing obstacles to the creation of the internal market due to the existence of different currencies, which also represent the encouragement to the political integration. On the other hand, as the most important external reason, authors determine the creation of a large currency area whose currency will compete for the position of the world's money. Also, the authors determine the benefits and costs as results of the EMU establishment. The most important costs include the loss of monetary policy as an instrument of economic policy, the fixed exchange rate and exogeneity of interest rates, inflationary tax loss and the possibility of devaluation.

Owen and Cole (1999) identify the benefits of the establishment of Monetary Union at the micro level (abolition of direct transaction costs of conversion rates, reducing the cost of payment operations, indirect benefits due to greater transparency, i.e., price comparability), the reduction of uncertainties due to credible fixing exchange rates and greater certainty for the future prices because of permanent fixation of the courses. Also, the benefits arise from the role of the international money, ie. expression the price of goods on the world markets in the domestic currency, the lack of currency risk for foreign debt and facilitated financing of the current account deficit. The introduction of the common currency also reflects to the financial system since the common currency contributes to the integration of financial systems resulting in facilitated diversification of risk.

According to Mundell (1991) the benefits and costs of introducing a common currency, explains the theory of optimum currency area (OCA), which is based on the several premises, according to which: 1) fixed exchange rates are used in areas that are closely integrated through the international trade and movement of factors, 2) between the regions fluctuating courses are established, 3) countries are fixing their courses depending on the degree of trade linkages and the degree of mobility of production factors. Mundell (1997) points out that the basic premise of the theory of optimum currency area implies a reduction of costs and maximise the expected benefits of monetary integration, while the required high degree of economic homogeneity among the countries. The author points out how economic homogeneity is evaluated according to the volume of exchanges, the intensity of the mobility of labour and capital, and the degree of compliance of business cycles. Assuming that these indicators are high, the degree of homogeneity among the countries is also high, and it is advisable to proceed with the merger into the Economic and Monetary Union.

McKinnon (1963) defines the basic criteria of the theory of optimum currency areas, which includes the mobility of production factors, flexibility of prices and wages, the similarity of the inflation rate, openness of the economy, fiscal solidarity, financial integration and the symmetry of economic shocks. Furthermore, Mundell observed the difference between the adjustment within the currency area that has a single currency and a currency area that includes more than one currency, and he points out the difference in adjustment between regions even if the courses are fixed. Mundell (1961) concludes that the optimal currency area is identical with economic regions, in the case where a region is defined in terms of factor mobility. Corden (1972) believed that the mobility of capital can be useful in the short-term, but long-term, cannot solve the problem of adjustment of countries affected by asymmetric shocks. If factors of production between regions are more mobile, the greater is the possibility of establishing a monetary Union that meets the criteria of the OCA. Mobility of production factors in the US is two to three times higher than in the EU. Thereby, as the key reasons are determined: particular problems with the transfer of social rights (pensions) and the

institutional, cultural and language barriers (Nikolić and Pečarić, 2007).

Flexible adjustment of prices and wages represents the response to surplus of supply and demand and could automatically bring the customization after the asymmetric shocks. If there is a need for adjustment of the real exchange rate, it is not important whether it occurs through price, wage, or course (Mundell, 1961). In the case of total flexibility in prices and wages, there would be no need for adjusting the relative exchange rates of courses within the area. The EU countries show a high degree of wage rigidities, resulting in high unemployment rates.

If inflation is present in one country, but not in another there are problems in fixing courses. Countries with similar rates of inflation strive to fixed currency exchange rate, ie. the common currency, which is a consequence of the purchasing power parity. The similarity of the inflation rates provides stability of the terms of trade (Mundell, 1961).

The openness of the economy is defined as the share of imports and exports (goods and services that enter into international trade) in total GDP of each country. If country is more open, it will be more prone to use fixed exchange rate, while the reverse situation applies to a closed economy. European countries are mostly open, which was further boosted by the program of creation of the Internal market. Also, the larger the volume of exchanges between the Member countries of the Economic and Monetary Union is, the greater are potential benefits of monetary integration (Mundell, 1961). A high degree of centralization of the budget enables the automatic transfers between regions that are affected by asymmetric shocks. This makes the adjustment easier and reduces the need for adjustments of the nominal exchange rates. Financial integration can reduce the need for adjustments of the exchange rate. With a high degree of financial integration, even small changes in the interest rates induce the movement of capital across the partner country. This reduces the differences in long-term interest rates making it easier to finance the external imbalance and encourages the efficient allocation of resources. The key objective of optimal financial integration is facilitating the diversification of the risk of asymmetric shocks.

The development of European Economic and Monetary Union (EMU) is a long-term and complex process, determined by the events occurred from the period of Roman (1951) up to the Lisbon Treaty (2007), and whose final phase took place in the period 1990 – 2002, through three key stages.

The first stage began on 1st of January, 1990 and has enabled the full freedom of capital movement in the Member States and closer cooperation in economic, financial and currency policies of the Member States with the objective of price stabilization and the improvement of economic convergence. In the area of monetary policy in the first phase, the central banks of the Member States had to maintain the courses of its currency in relation to a central exchange rate according to the ECU in the $\pm 2.25\%$, make the height of short-term interest rates more closer, and to maintain a low rate of inflation (Vujčić, 2003).

The second stage of the formation of EMU began on 1st of January, 1994 with the establishment of the European Monetary Institute as the precursor of the European Central Bank (ECB). The main task at this stage included the realization of coordination of national monetary policies of the Member States, increasing the cooperation between the national central banks and the simplification of the use of the ECU. In this stage, the principle of the prohibition of financing budget deficits of the central banks loans was adopted and also prohibition of privileged access of the public sector to financial institutions. Due to intercurrent problems in relations between the Member States in 1994, the range of fluctuation increased to $\pm 15\%$ in relation to the central rate. After these intercurrent disorders, which have resulted in turning out the British pound and the Italian lira from the system of exchange rates and devaluations, the situation has stabilized in the coming years (Rant, 2011).

The third stage began on 1st of January, 1999 by participating 11 Member States which have fulfilled the criteria of nominal convergence. The first Member States of the EMU were: Belgium, Netherlands, Luxembourg, Germany, Ireland, Italy, Spain, Portugal and Finland. Britain and Denmark have not joined, for political reasons, and Greece and Sweden due to their failure to fulfil the

criteria. Furthermore, the third stage took place in 2 parts. The first part started on 1st of January, 1999 with irrevocable fixing exchange rate against the euro and currency of each other. The responsibility for defining and managing monetary policy takes over the European Central Bank, and leads defined monetary policy across the national central banks. Exchange of currencies for the euro begins only in the financial sector, where the euro existed only as a book or giro account or credit money, and not as effective money. The second part of the third stage started on 1st of January, 2002 when the euro is introduced as a deposit and effective money and at that point all national currencies had to replace by the euro by mid-2000. Also, all the financial instruments had to denominate in the euro (Šimić, 2002).

3. THE CONCEPTS OF REAL AND NOMINAL CONVERGENCE

The concept of real convergence is oriented on the catching up the level of economic development of the EU average, or the completion of the transition process and the related structural reforms, which would make the European developing countries „more like" the other Member countries of the EU. Convergence of income has been associated with the level of GDP per capita and prices, and structural convergence with the institutional framework and the business environment in which the economy operates. By this concept the degree of readiness of each country for monetary integration can be measured as well, but since it is not precisely defined, it enables the Union additional space for any possible interpretation and manipulation. In general, the real convergence implies the reduction of differences in levels of development. It is defined as the similarity in the level of GDP per capita, the level of nominal wages, the balance of the real exchange rate and the associated similarity of price levels and price relations of foreign trade and local goods. Real convergence is defined as the reduction of differences in productivity and the price level between countries. The necessary conditions for the success of the real convergence represents the orientation of the export strategy, openness to foreign investment, investing in education and training of the workforce and macroeconomic stability (Gaspar, 2001). As the most common indicators of real convergence are used (Bjorksten, 2000) *employment rates and unemployment, GDP per capita, income*

distribution, income and expenditure of the State as a percentage of GDP and the development of unit labour cost and other price indices.

Furthermore, Bjorksten (2000) points out that the significant indicator in which must be achieved real convergence is the exchange rate too, where the difference between the actual level of the exchange rate and long-term function levels should be as small as possible. In developing countries the actual exchange rate in relation to the long-term equilibrium is underestimated. The real convergence of developing countries depends on many factors specific to a particular country, such as for example avoiding macroeconomic crisis, high rates of investment, developed financial sector, etc. Developed financial sector implies its stability as a whole, together with the respective markets and institutions. Real convergence requires sustainable economic growth, which can be achieved by appropriate macroeconomic and microeconomic policies. For the development of economic activity important are: effective domestic regulation of the business, the tax regulation, jurisprudence, combating crime and general political-economic stability. The European developing countries are faced with these problems and until they are resolved, it is difficult to expect their progress and development. Real convergence also depends on the ability of each country to monitor technological advances and realization of the benefits of spill-over effects of technology, especially through foreign direct investment. In order to achieve this macro-economic stability, effective competition on the market of goods, services and production factors, and high-quality human capital are required. The achievements of real convergence must not be considered without an appreciation of the contribution of EU regional policy, which aims to improve the long-term growth in less developed areas of the Union, ie. mitigation of differences in levels of development.

On the other hand, the Maastricht criteria or the criteria of nominal convergence defined in 1992 lays down the criteria that a country must fulfil if it wants to join and equally participate in European Economic and Monetary Union (EMU).

The specific requirements prescribed by nominal convergence criteria imply (Lavrač, 2003):

1. the inflation rate must not be higher than 1.5 percentage points above the average inflation in the three EU countries with the lowest rate of inflation,
2. the budget deficit must not exceed 3% of GDP,
3. public debt must not exceed 60% of GDP,
4. average nominal long-term interest rate must not be more than 2 percentage points compared to the interest rates of three EU countries with the lowest rate of inflation,
5. stability in the exchange rate and the participation in ERM II for a period of at least two years before the introduction of the euro, the exchange rate of the currency against the euro has to fluctuate within the allowed limit of +/-15 in relation to a central parity.

In addition to these criteria, countries must create a legislative environment that will ensure the independence of the national central banks. Fulfilling the nominal convergence criteria does not guarantee the long-term economic growth of all Member States, not even the total positive effects of the formation of the Union. The premature entry of less developed countries in the Monetary Union can cause a deeper divergence, ie. the lag behind the developed States (Jovančević, 2005).

The convergence criteria are formed in a way that their fulfilment results in a prudent economic policy and real convergence, ie. the balancing of business cycle. The important feature is the cogency, ie. it requires taking into the consideration the specific measures, sometimes unwanted, in order to create conditions for coordination and convergence of economic policies. The criteria are set to lead the country's prosperity and stability, credibility and strengthening the reputation of the Economic and Monetary Union. By meeting the convergence criteria and the implementation of stability before joining the Economic and Monetary Union the possibility of occurrence of free riders¹ as been avoiding. Boost to such behaviour are short-term

¹ Free rider – a subject that does not alter their behavior in the direction in which to make up the rest with the purpose of achievement of the expected benefits, already expected to be regardless of his inertia, a part of the benefits incurred as a result of the changes made in the rest of the groups spill over and over it.

costs before joining, which bring cooperative behaviour in the form of harmonization of economic policies with other potential members.

Positions from which countries converged differ, considering to their level of development, the characteristics of the monetary and fiscal policies and the general stability and confidence in the economic policy holders. Fulfilment of the convergence criteria must be sustainable, ie. achieved on a healthy and long-term basis. Sustainability is needed in candidate countries not to manipulate the data and undertake emergency measures in times when their fulfillment of the criteria estimates officially. Customization to the criteria needs to be timed in a way to enable the country painless transition to Eurozone membership. The European Commission points out that it is crucial to put the emphasis on the fulfilment of the Copenhagen criteria, ie. the criteria for membership in the EU. Premature achieving the nominal criteria may make it difficult for sustainability in a later period.

4. THE ANALYSIS OF REAL AND NOMINAL CONVERGENCE OF REPUBLIC OF CROATIA

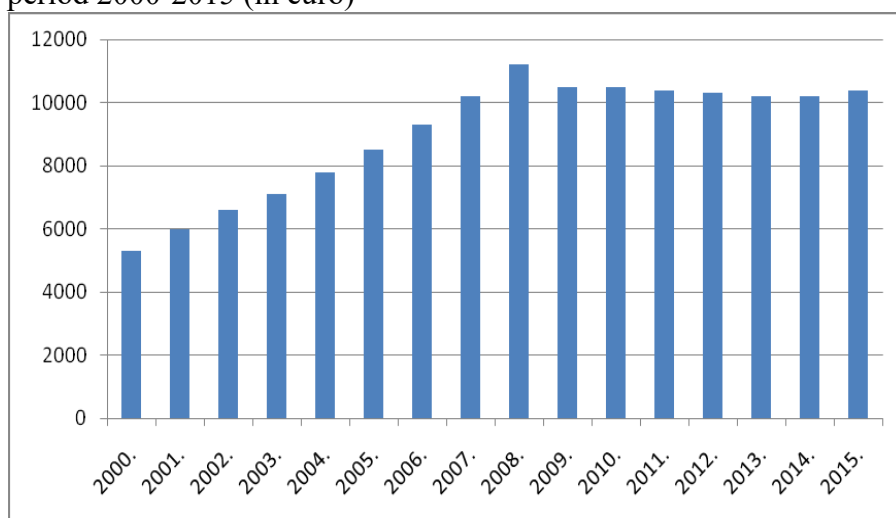
4.1. Research methodology

In this paper descriptive analysis of real and nominal convergence of the Republic of Croatia was conducted. Assessing the real convergence of the Croatian economy following indicators were used: GDP per capita (in euros), growth rates (%) of GDP, the rate of unemployment (% active population), the employment rate (% of population 15-64 years), and the state revenues and expenditures (% of GDP). Furthermore, in the assessment of the real convergence are used following indicators: inflation rates, the budget deficit (% of GDP), public debt (% of GDP) and long-term nominal interest rates on Government bonds (%). In the analysis, depending on the availability of data the period from 2000 to 2015 is covered. Data are collected from secondary statistical database of Eurostat, the World Bank and the AMECO. In the interpretation of data the comparison with the EU average was made.

4.2. The analysis of the real convergence of Republic of Croatia

GDP per capita in the Republic of Croatia was constantly increasing to 2008, when the level of 11.200 euros was reached, and that was the highest value in the observed period. After 2008, primarily due to the negative effects of the global economic crisis, it began reduction in the level of GDP per capita, which lasted until 2013. The first signs of recovery were observed in 2015 when GDP per capita was 10.400 euros, which showed an increase compared to 2014 (figure 1). On the other hand, the average level of GDP per capita at the EU level in 2015 amounted to 28.800 Euros, from which is evident noticeably lagging behind of the Republic of Croatia.

Figure 1. Movement of the GDP of the Republic of Croatia in the period 2000-2015 (in euro)



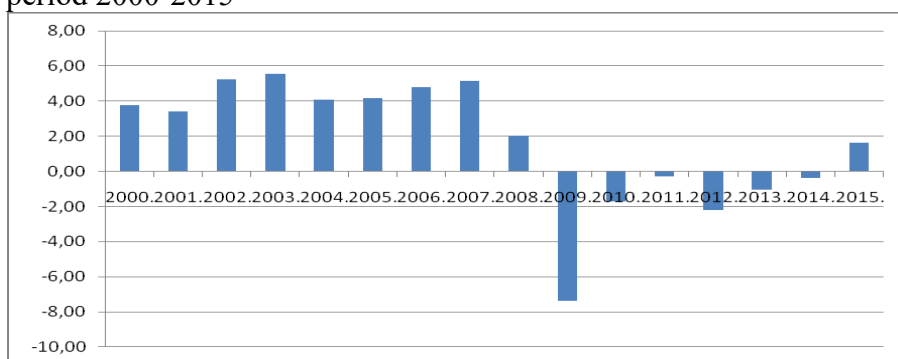
Source: made by the author on the basis of the AMECO (1), 2016

Furthermore, Republic of Croatia is currently, according to the value of GDP per capita, on 36.1% of the EU average. The specified value represents an increase in comparison with the beginning of the period (26.7%), but still maintains the status of Croatian economy adversely compared to other EU Member States.

The Croatian economy up to 2007 achieved relatively stable growth rates. However, the start of the economic crisis and the deterioration

of the overall economic and social environment, have resulted in economic decline, which lasted until 2014. In 2015, Republic of Croatia achieved economic growth of 1.64%, which indicates a slow recovery of the economy (figure 2). In addition, during the study period, the Croatian economy grew faster (average 1.68%) than the economy of the EU (average 1.4%), which has confirmed the fundamental convergence assumption, according to which *"less developed countries grow faster than developed countries."*

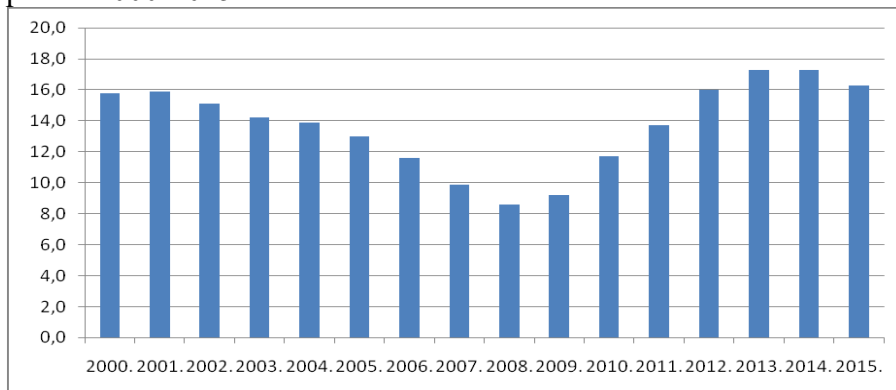
Figure 2. Growth rates of GDP in the Republic of Croatia in the period 2000-2015



Source: made by the author on the basis of the World Bank (1), 2016

Another significant problem of the Croatian economy represents high unemployment. In observed period, the unemployment rate has decreased from 2004 to 2008 when it reached the lowest level (8.6%), in the observed period. From 2008 begins high growth of unemployment, which reached a highlight in 2014, when the total unemployment rate amounted to 17.3%. In 2015 it was recorded a reduction in unemployment and it achieved the level of 16.3% (figure 3).

Figure 3. The unemployment rate of the Republic of Croatia in the period 2000-2015

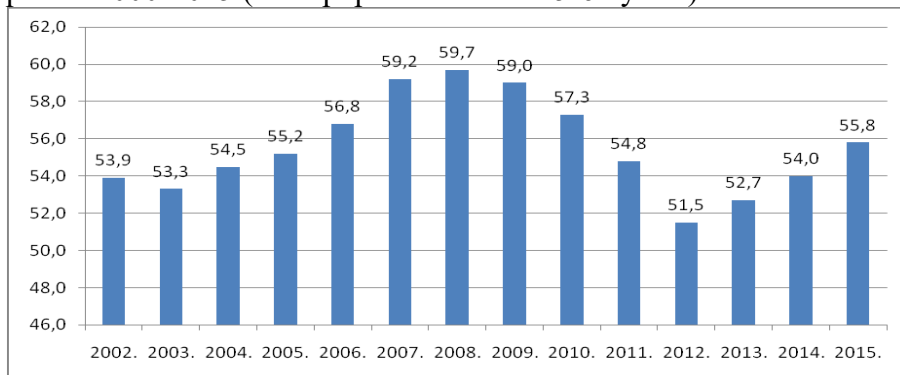


Source: made by the author on the basis of Eurostat (1), 2016.

However, the relative reduction in unemployment still does not constitute a basis for excessive optimism. The Republic of Croatia still has unemployment almost twice greater than the EU average (9.4%) and, after Greece (24.9) and Spain (22.1), one of the highest unemployment rate among EU Member States.

The unemployment rate of the population from 15 to 64 years was constantly in increase until 2008, when it achieved the highest level in the observed period (59.7%), followed by employment of the negative trend, which lasted until 2012, when it achieved the lowest value (51.5%). However, the improvement of employment began in 2013 and was continued until 2015, when the employment rate was 55.8%. However, according to this indicator, the Republic of Croatia is still significantly below the EU average (66% in 2015) (figure 4).

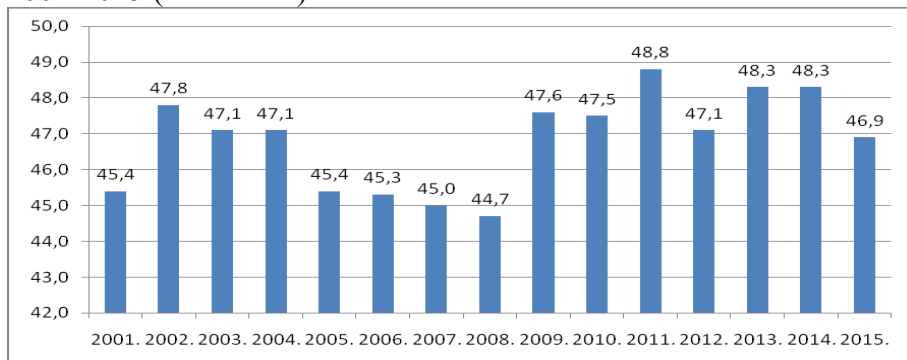
Figure 4. The employment rate in the Republic of Croatia in the period 2000-2015 (% of population from 15-64 years)



Source: made by the author on the basis of Eurostat (2), 2016

The value of government spending in the Republic of Croatia decreased from 2004 to 2008, when the lowest level in the observed period was recorded. After 2008, the government consumption increased with certain exceptions. In 2015, government consumption was at the level of 46.9% of GDP, which represents a decrease compared to 2014. The overall level of government spending in the Republic of Croatia is lower than the EU average (47.3% of GDP in 2015) (figure 5).

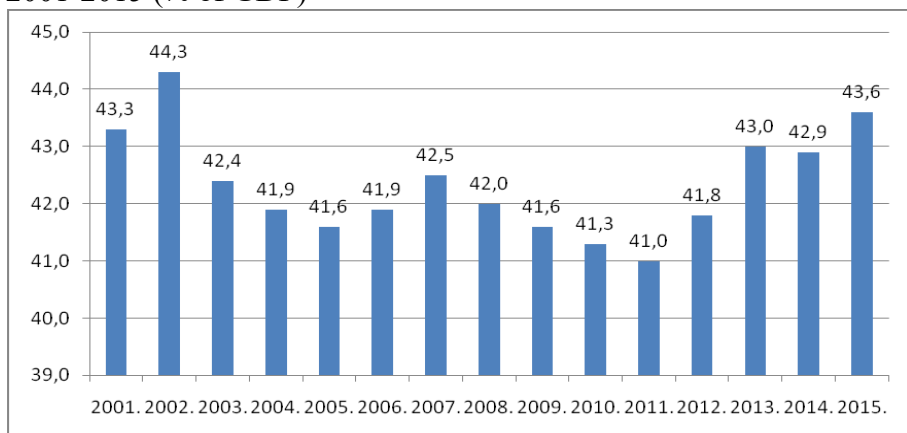
Figure 5. State spending of the Republic of Croatia in the period in 2001-2015 (% of GDP)



Source: made by the author on the basis of Eurostat (3), 2016.

Furthermore, state revenues were reduced from 2007 till 2011, when it reached the lowest level in the observed period (41% of GDP), after which it began to re-grow. State revenues of the Republic of Croatia were 43.6% of the GDP in 2015, which showed the increase in relation to the 2014 (42.9% of GDP). The Republic of Croatia is below the EU average according to this indicator (44.9% of GDP in 2015) (figure 6).

Figure 6. State spending of the Republic of Croatia in the period from 2001-2015 (% of GDP)



Source: made by the author on the basis of Eurostat (3), 2016.

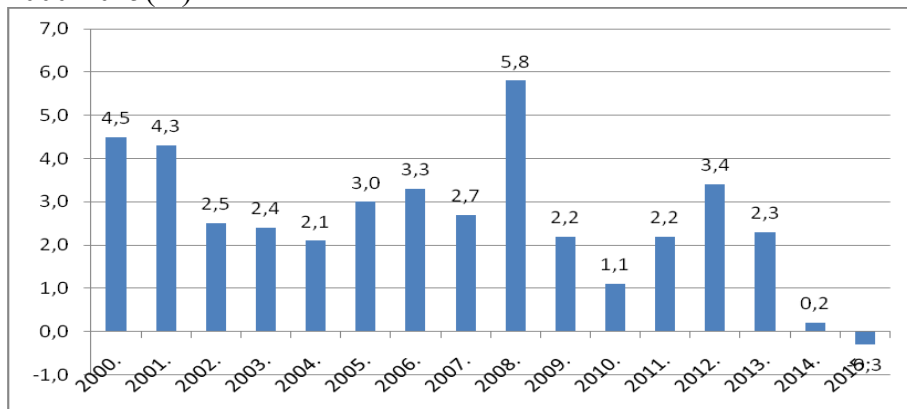
The previously analysed data indicate a slight recovery of the Croatian economy. In 2015, the growth of the economy was achieved, an increase in the level of GDP per capita, the reduction of unemployment and employment growth. Furthermore, the state revenues and expenditures were reduced. However, the drilldown status indicates that there is still a large lag behind of the Republic of Croatia. According to the level of GDP per capita, Republic of Croatia is at 36.1% of the EU average. Furthermore, the major problem represents also very high unemployment rate, almost double then EU average, which makes Republic of Croatia ranked on the bottom among member countries, just behind Greece and Spain. Furthermore, according to the level of employment, Republic of Croatia is again below the EU average. Moreover, in the structure of public expenditure there is a lack of investment in modern engines of growth (primarily research and development), which should be the backbone of future development and competitiveness of the Croatian economy.

4.3. Analysis of nominal convergence of Republic of Croatia

Republic of Croatia had the highest inflation rate in 2008 (5.8%), and after that exercised variously values. The inflation rate after 2012 continuously decreased and in 2015 there was deflation, ie. a negative inflation rate² of 0.3%. Theoretically, this situation is also not favourable for the economy since it results in instability (primarily uncertainty) and monetary policy can limit the production (figure 7). At the EU level, the inflation rate in 2015 was 0%. In the same time, the lowest rates of inflation were in Germany, Estonia, France, Italy, Luxembourg and Hungary (0.1%).

² Economists have the attitude that "the most advantageous situation" is one in which inflation is low and stable, at levels of 0-3%.

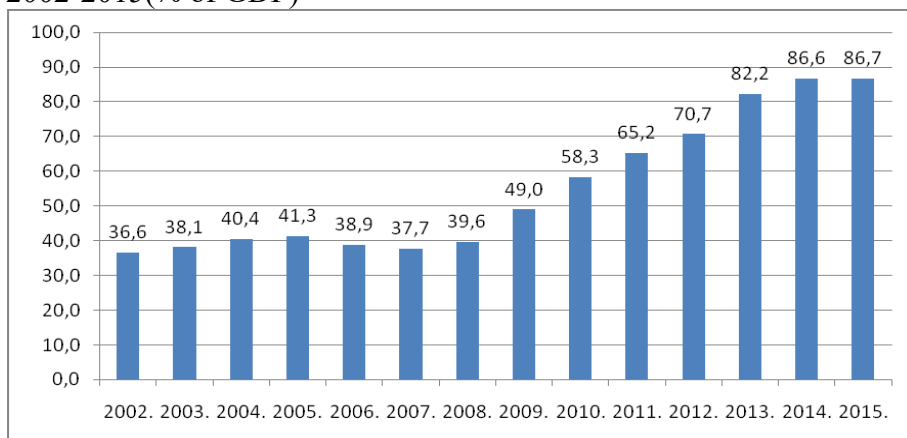
Figure 7. The inflation rate of the Republic of Croatia in the period 2000-2015(%)



Source: made by the author on the basis of Eurostat (4), 2016

The public debt of the Republic of Croatia in 2015 was 86.7% of GDP while continuing increasing trend began in 2008. Croatian public debt is higher than the average EU public debt (85%). According to the criteria of nominal convergence, "public debt may not exceed 60% of GDP", it is evident that the Republic of Croatia currently does not meet this condition (figure 8).

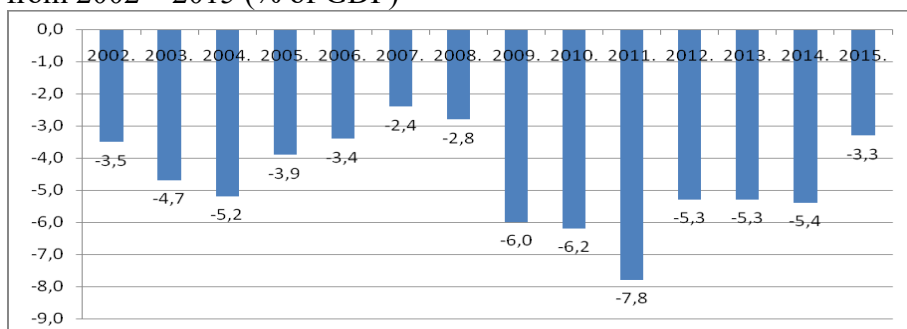
Figure 8. The public debt of the Republic of Croatia in the period from 2002-2015(% of GDP)



Source: made by the author on the basis of Eurostat (5), 2016

The Republic of Croatia in 2015 achieved the budget deficit of 3.3% of GDP. Also, a significant increase of the budget deficit was recorded in the period after the start of the economic crisis, and the climax is reached in 2011, and the highest level was achieved in the observed period (7.8%) (figure 9). After 2011, 2012 and 2013 were followed by stagnation and a further reduction, which continued until 2015³ (figure 8). Keeping in mind, that "the budget deficit must not be higher than 3% of GDP", it is evident that the Republic of Croatia does not meet nor this criteria.

Figure 9. The budget deficit of the Republic of Croatia in the period from 2002 – 2015 (% of GDP)

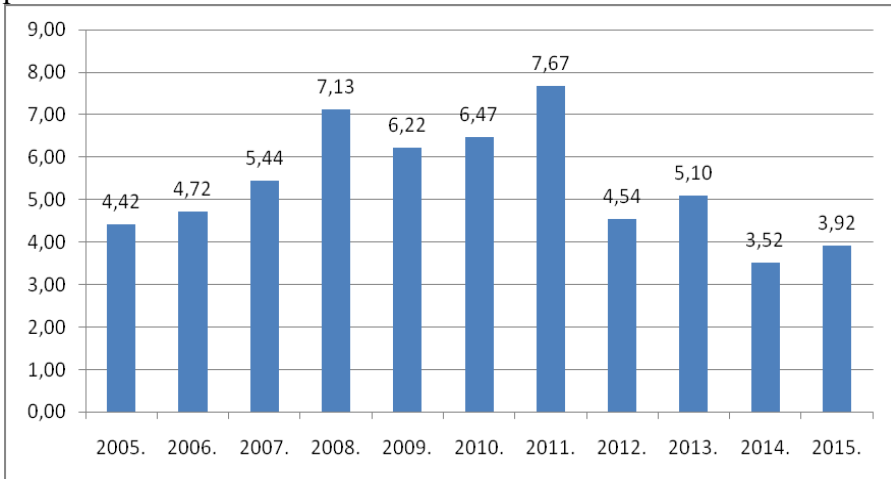


Source: made by the author on the basis of Eurostat (6), 2016

The nominal long-term interest rate on Government bonds in Republic of Croatia amounted to 3, 92%, which represents an increase compared to 2014. At the EU level, it was much lower and stood about 1.47%. From the group of countries with the lowest inflation rates, long-term nominal interest rates on State bonds amounts 0.19% in Germany, 0.67% in France and 1.94% in Italy. The average value of long-term interest rates in these three countries was 2.8%. Taking this into consideration, the criteria of nominal convergence, it is evident how the Republic of Croatia meets the interest rate criteria (figure 10).

³ Croatia is under the constant supervision of the Commission in terms of the achievement of objectives of given the recommendation of the Council on ending the excessive deficit situation in January 2014 and is situated directly at the finals of the excessive deficit Procedure (EDP), from which it should come out formally in July 2017. at the end of the cycle of the European semester.

Figure 10. The long-term interest rates of Republic of Croatia in the period from 2005-2015



Source: made by the author on the basis of Eurostat (7), 2016

Furthermore, the criteria of nominal convergence imply how with the purpose of fulfilling the criteria of nominal convergence should be initiated participation of the kuna in exchange rate mechanism ERM II⁴, for at least two years. That requires the maintenance of exchange rate stability against the euro without tension in the exchange market, which includes the movement rate of Kuna against Euro in agreed limits of fluctuations in relation to the set central exchange rate. Participation in ERM II is voluntary and the member country decides when to begin negotiations about it. Croatia, by joining the European Union, as well as all Member States of the Union, committed it self to in the coming time, exert all efforts in order to meet all the necessary convergence criteria and prepare its economy for the introduction of the euro. Croatia so far has not joined the ERM II mechanism and considering the given economic situation and unfavorable environment, neither expects its entry any time soon.

⁴ Agreement of 16 March 2006 between the ECB and the national central banks of the Member States outside the euro area, which lays down the operating procedures for an exchange rate mechanism in the third stage of economic and Monetary Union.

5. THE POTENTIAL EFFECTS OF THE EURO ADOPTION ON CROATIAN ECONOMY

The research in the work was continued by identifying potential effects of euro introduction on the Croatian economy. Čehulić (2012) points out that the process of the introduction of the euro is comprehensive and long-lasting process, achievable at the moment of the inclusion of the Member States in the EU. Before the start of the last economic crisis, the criteria of nominal convergence were only criteria that the country had to fulfil for membership in the EMU. The impacts of the economic crisis deepened these criteria, and now country has the obligation of establishing competitive economy with no visible external and internal imbalances, ie. the achievement of a high **degree** of real convergence. The prospect of inclusion of Republic of Croatia in the EMU, and the potential effects, will also depend on the willingness of economic policy makers **to systematically** review the causes of the **weaknesses** of the Croatian economy, and implement effective measures to **ensure the removal of potential weaknesses**.

Vujčić (2003) points out that the level of impact of the euro on the economy is in some proportion with the level of its economic ties with the countries of the EMU. The author states that according to the power of influence which EMU has on their economies, countries can be divided into: 1. IN countries of the EU, ie. Member States to which EMU has the biggest impact in the short-term, 2) BEFORE – INS countries, ie. EU countries that have not joined the EMU yet and on which EMU has a relatively small, but important impact in the short-term and a great impact in the medium term when it is expected to become members of the EMU, 3) transitional countries and the countries of Central and Eastern Europe that are candidates to enter the EMU in due time and 4) all other countries to which the EMU has a relatively smaller, but significant impact in the short-term, and which intends to increase over time.

Considering the potential effects of the introduction of the euro on the Croatian economy, it is necessary to look at the microeconomic and macroeconomics effects. Microeconomic effects include effects on financial markets and institutions, and on the company, while the

macroeconomic effects refer to analysis of monetary effects and effects on foreign trade.

Considering the effects on financial markets and institutions, it is necessary to highlight how financial intermediaries channel most of the impact of the EMU, through transactions with foreign countries. In the initial phase, a significant cost will represent the customization and testing the correctness of the information systems of the financial sector. However, this process on the one hand reduces the limitations which have represented the national boundaries and brings significant savings in the future (Šošić, 2008). Reducing currency risk will also lead to a decrease in the costs of the banking sector. The introduction of the euro will significantly cheapen the transactions of the entities outside of the banking sector at the expense of reducing banks' revenue from the mutual conversion of the currencies of the Member States. In the countries of the EMU, sector of financial intermediaries is under special pressure. In fact, large companies, until now have focused on banks, while under the influence of the introduction of the euro are passing process of deepening and expanding. Within such events, the Croatian banks (those that have not yet been foreign-owned) must search for the strategic partners in the banks that operate in the area of EMU, which is going through a smaller number of correspondents and a higher volume of transactions, result in a reduction in the cost of the international payments.

Furthermore, the banking sector is the most common and largest sector in the Croatian financial system. Membership in the EU, and moving towards membership in the EMU resulted with growth in the number of bank branches, formed as a result of the expansion of banks' business operations, and the increasing equity of loans to households. With a strong ranking of loans, assets of the banks also grow. By the market liberalization of financial services, the entry of foreign property and the adoption of uniform legislative framework, the banks achieve the option of greater activity and monitoring trends on the international market. At the present, especially at the time of introduction of the euro, the regulatory and supervisory institutions

(the CNB, HANFA⁵ and the Ministry of Finance) will have to take extra concern about the stability of the financial system.

Inclusion of the Republic of Croatia in the EMU will result in the integration of the Croatian financial markets with the markets of EMU and with strengthening competition of domestic and foreign financial institutions and market concentration of financial institutions, which will ultimately lead to increase in the supply of financial instruments, the reduction in interest rates, growth, the flexibility of the terms of business and increase of investment, production, etc. (Spajić, 1998). However, all of above could ultimately result in the growth of indebtedness, achieved due to easier availability of favourable financial resources and by increasing, already large, foreign property in the structure of the financial institutions in Croatia.

The costs of the introduction of the euro shall be borne by the Croatian National Bank. Replacement will be made by the Croatia National Bank, with the help of commercial banks and it will include the cost of printing and distribution. During the dual circulation, commercial banks will make the withdrawal of the particular part of the Croatian cash money from the market and by keeping the receipts in Croatian kuna (HRK) and doing a payment only in euros will lead to a currency conversion of kuna deposits in euros. The disappearance of exchange risk, financial institution placed emphasis on other forms of risk, ie. market risk, the risk of interest rate fluctuations, the risk of inflation, etc.) The introduction of the euro brings also the reduction of transaction costs and increase of transparency (CNB, 2012).

The introduction of the euro will also have a significant impact on companies which need to access to this process in a strategic way ie. from all the information about their capabilities and the capabilities of its partners and competitors, determine the proper strategy and key steps to be ready for business in the new environment. Companies must estimate the impact of the euro adoption in the different organizational units and to ensure proper adjustment in each unit (Šošić, 2008). In this way they will get the answer to the questions: *How to manage against the risk and what kind of changes make to manage cash flows?* The largest enterprises in Croatia, for which

⁵ Croatia, the Agency for supervision of financial services

foreign investors already have shown, or they will show an interest, must be able to show their own bonds on the European financial market. The initial adaptation will lead to large initial costs in companies, but after making the adjustments it will result in a larger manifold benefits. The company will experience a reduction in costs. Furthermore, the reduction and disappearance of transaction costs, eliminating currency risk and the development of the financial markets should allow financing directly without the mediation of the banks and streamline business operations to the biggest companies. In general, the introduction of the euro will lead to consolidation of the companies and increasing their competitiveness.

The introduction of the euro in the business of the company is necessary to consider from a few aspects ie. the financial aspect, impact on supply and the impact on sales and marketing (Vujčić, 2003). The process of introducing the euro in the enterprise business requires "a quality preparatory period", which will create conditions for the creation of a high-quality implementation of the infrastructure.

The financial aspect implies the reduction of transaction and conversion costs by reducing number of required accounts in the banks (one account is sufficient for business operations in the whole EMU) and the elimination of commission costs when replacing one currency into another. Rationalization of operations by reducing the bank accounts will simplify cashiering regard to fewer types of bills in circulation and it will also reduce the volume of accounting operations. Also, the common currency allows the reconciliation of the currency structure of the inflow and outflow of the currency structure and it is no longer necessary to use the financial market as a protection against currency risk and reduce costs. Deeping financial market will enable cheaper and easier financing for all subjects which want to finance by issuing debt in euros. The impact on the acquisition stems from the fact that all the contracts and rates will be revised and converted to the euro. Furthermore, all sold products and services in the Member States have a highlighted the price in euros, which in the terms of free trade ensures a greater competitiveness. This will positively affect the price reduction, achieving favourable conditions of procurement and the harmonisation of payment terms. The growth of the competitiveness results with squeezing weaker companies

(closing the plant and resettlement in a third country), so companies must be on the alert and start looking for alternative supply chains. Finally, the consolidation of the market and increasing competition will lead to a reduction in price.

Previously analysed microeconomic criteria are followed by macroeconomic criteria. In general, the Republic of Croatia before and after the incorporation into the EU, the largest part of the international exchange was doing with the Member States, on which accounts about 2/3 of its international exchanges. The creation of the Monetary Union, ie. the introduction of a common currency encourages trade and openness. The trade between the areas that use the common currency is cheaper and easier than between areas with different currencies (Bilas, 2008). Belonging to a "currency union" triples trade with regional partners in the Union positively reflects on the growth of income of the population. The effect of the introduction of the euro for Croatian economy will be increasing the openness of the economy and the increase of the share of commerce in total GDP. That will generate a more rapid growth of the economy. Furthermore, trade liberalization should accelerate growth via cheaper inputs and the increase in competition and that leads to higher productivity and lower prices and bigger markets in foreign countries. The introduction of a common currency will inspire competition and lead to the elimination of price discrimination, because of their transparency, ie. comparability and to ensure the stability of the business environment of the national economy and its participants.

Furthermore, the introduction of the euro will have positive effects on the volume of foreign direct investment (Sisek, 2009). Most of the investments in Republic of Croatia in the past few years come from the countries of the EU and the Eurozone. By joining the EMU will create a favourable business climate for foreign investors and a fertile ground for greenfield investments. The increase in the volume of investments will affect productivity and the growth of the economy and its profitability which will result in additional (progressive) investment processes, necessary for recovery of the Croatian economy.

An important component that needs to be mentioned in the inclusion of the countries in the EMU is economic and monetary policy. The common economic policy refers to the integration of the economies in the EU, boosting economic growth, ensuring existing and new jobs, and the common monetary policy in the EU led by the European Central Bank (ECB) together with the national central banks of the member countries of the Eurozone. When Croatia adopt the euro, the CNB will, together with the ECB "lead" monetary policy, with the main objective of maintaining price stability. Begičević and Redžep (2012) point out that the introduction of the euro will facilitate business operations of Croatian businesses, provide price comparison on the market, eliminate currency conversion costs and most importantly, eliminate currency risk, which majority of the citizens feel through the increase in the amount of the loan rate. It will be also required to adjust the existing high interest rates in Croatia to the countries of the Eurozone.

According to Tišma and associates (2012), participation in the EMU will prevent or at least minimize the possibility of targeted appreciation and depreciation shocks. Croatia will be involved in the integration of European financial markets and will have better access to liquidity, considering low domestic savings rate. Balance of payments will become common for the entire Monetary Union. Emission gains, as potential means of funding of the national expenditure by issuing banknotes of the Central Bank and its disappearance would affect the budgetary adjustment that may be by reduction of expenditure or fiscal measures. By joining the EMU will reduce the state foreign exchange reserves and make changes in the share of other non - euro currency in the structure of foreign exchange reserves. Irrevocably fixing the exchange rate will lead to a complete equalization of interest rates of the same nature, maturity and risk. Joining the EMU will reduce the States foreign exchange reserves and make changes in the share of the other non – euro currency in the structure of foreign exchange reserves. Irrevocably fixing the exchange rates will lead to a total equalisation of interest rate of the same nature, maturity and risk.

6. CONCLUSION

The creation of the European Economic and Monetary Union is the most important event of integration on the European continent, started in 1951 and whose final stage took place in 2002, when the euro was put into circulation in the form of notes and coins. The introduction of the euro implies fulfilment of nominal convergence criteria, and, especially in the current post-crisis conditions, achievement the convergence, through the implementation of structural reforms and creating conditions to ease the development of lagging behind the developed EU countries. As the biggest limitation of the common currency, economic theorists emphasize primarily the loss of control over monetary policy. On the other hand, benefits are numerous and include positive effects on financial markets and institutions, enterprises, foreign trade and the effects on the overall economy.

The Republic of Croatia became a member of the EU in 2013 and committed itself to introduce a common currency as soon as it meets the prescribed criteria and create "favourable conditions". However, despite the numerous advantages of euro adoption and potentially the improvement of the competitiveness of the national economy, there is still no consensus of economic and political authorities in Republic of Croatia about the term and mode of euro introduction. Primarily, scepticism towards the euro adoption is based on the general and well-known situation in Greece. In the Republic of Croatia was often mentioned introduction of the euro even before the country became a full member of the European Union, as well as about the artificial maintenance of the Kuna exchange rate. The attitude about this scenario was stated by the director for research at the National Bank of Croatia Evan Kraft: "Croatia as a future Member of the EU must respect the procedure: not to introduce the euro before entering the EU, and even then, until they spend a certain currency adjustment mechanisms. Politically, the introduction of the euro would be an act of self-destruction. The EU stance is clear, don't do that." Furthermore, the possibility "of premature and accelerated" introduction of the euro appeared in 2016, when then-political top pointed out the ambition of euro adoption over the next four years. This attitude was with strong condemnation of economic analysts, the foremost economist Ivan Lovrinović, who pointed out how euro

adoption in the current economic situation in the Republic of Croatia "will result like a Greek scenario". On the other hand, the Governor of the Croatian National Bank Boris Vujčić, foresees a scenario according to which "Republic of Croatia should enter in the European exchange rate mechanism by 2020 and should become the member state of the euro zone earliest up to 2023". In doing so, Vujčić points out that "the possibility of the euro adoption depends on the willingness to seriously approach the process of filling the National Plan of Convergence and the National Programme of Reforms which would implement the technical requirements of transition to the euro, primarily those structural changes that would allow an increase in the potential growth rate of the economy."

In general, the common position of the opponents and those who are for the introduction of the euro in the Republic of Croatia is based on the same attitude: "Croatian economy is barely recovering from the last economic crisis which has been hard hit, and as such is not able to make quality adjustments for potentially new and demanding situation. Also, the Republic of Croatia records the most noticeable development lagging behind all other EU member states (except Bulgaria and Romania)".

Also, the economic crisis and the new events in the EU (especially exit of Great Britain from EMU) have brought into question the future of the European Economic and Monetary Union. One of the creators of the common currency, Jacques Delors in the report from 2016 points out that "the euro will probably not survive the next economic crisis, and it is therefore necessary to modify the Monetary Union to avoid the inevitable collapse". Also, the Croatian economic experts point out that „the biggest drawback that makes it more difficult for the functioning of the Monetary Union are poor mobility of the workers and the rigidity of wages". Furthermore, German economist Otmar Issing points out that "ECB is losing independence because it adjusts to wishes of the governments which fear of collapse of the banking system or bankruptcy".

Negative opinions on the common currency in the process of its creation have also emphasized Milton Friedman: "the euro is motivated by politics, not by the economy." Also, he added that „the

euro is introduced with the aim of levying linking France and Germany so strongly that some kind of a future war in Europe becomes impossible and to set the basis for a United States of Europe. I believe that the euro adoption will have the opposite effect. It will increase political tension by turning that shocks that could alleviate with exchange rate adjustments of currencies in political views which cannot be reconciled. The political unification can pave the path to the monetary unification. Monetary unification imposed under adverse conditions will show up as an obstacle to the establishment of a political union".

REFERENCES

1. AMECO (1), 2016, available on:
http://ec.europa.eu/economy_finance/ameco/user/serie/ResultSerie.cfm
2. Begičević – Ređep, N. 2012. Ulazak u EU – monetarna politika, Regionalni plus, Zagreb, Croatia
3. Bilas, V. 2008. Trgovinska povezanost Republike Hrvatske i Europske unije, Zbornik radova Ekonomskog fakulteta u Zagrebu, Vol.5, No.1., pp. 67-78, Zagreb, Croatia
4. Bjorksten, N. 2000. Real convergence in the enlarged Euroarea: a coming challenge for monetary policy, Bank of Finland, Economics department, Working Paper 1.
5. Corden, W., 1972. Monetary Integration, Essays in International Finance, International Finance Section No. 93, Princeton University
6. Cuculić, J., Faulend, M., Šošić, V. 2004. Fiskalni aspekti pridruživanja: možemo li u Europsku uniju s proračunskim deficitom? Financijska teorija i praksa, Vol. 28, No 2., pp 155-179
7. Čehulić, Z. 2012. Troškovi i koristi uvođenja eura u Republiku Hrvatsku, University of Zagreb, Faculty of Economics and Business, post Bologna master thesis
8. Eurostat (1), 2016, available on:
<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&pcode=tipsun20&language=en>

9. Eurostat (2), 2016, available on:
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsq_ergan&lang=en
10. Eurostat (3), 2016, available on:
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov_10a_main&lang=en
11. Eurostat (4), 2016, available on:
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=prc_hicp_aind&lang=en
12. Eurostat (5), 2016, available on:
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov_10dd_edpt1&lang=en
13. Eurostat (6), 2016, available on:
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov_10dd_edpt1&lang=en
14. Eurostat (7), 2016, available on:
<http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&pcode=teimf050&language=en>
15. Gaspar, P. 2001. Real and nominal convergence of pre – accession economies and the choice of exchanging rate, International centre for economic growth and Budapest University of Economics. Paper presented on the conference Alternatives for Exchange Rate Regime in Pre-Accession Economies, September 20-21, Vienna, Austria.
16. Hrvatska narodna banka, 2012. Međunarodna suradnja – Pristupanje EMU, Zagreb, Croatia, available on:
http://old.hnb.hr/medjunarodna_suradnja/h-rh-i-eu.htm
17. Jovančević, R. 2005. Ekonomski učinci globalizacije i Europska unija, MEKRON PROMET, Zagreb, Croatia
18. Lavrač, V. 2003. ERM II strategy for accession countries“, Working paper 2003/19, Institute for Economic Research, Ljubljana, Slovenia
19. McKinnon, R. 1963. Optimum currency areas, American Economic Review, Vol.53, No. 4, pp. 717. - 725.
20. Mundell, R. 1961. A theory of Optimum currency areas, The American Economic Review Vol. 51, No.4, pp. 657. – 665.
21. Mundell, R. 1999. Exchange rate arrangements in transition economies, in Blejer, M., Škreb, M. Balance of payments,

- Exchange rates and Competitiveness in Transition Economies, Kluwer Academic, Boston/Dodrecht/London, pp. 95-130.
22. Nikolić, N., Pečarić, M. 2007. Osnove monetarne ekonomije, Naklada Protuđer, Split, Croatia
 23. Owen, D.; Cole, P. 1999. EMU in perspective – understanding monetary union, FT Practice Hall, London
 24. Rant, V. 2011. Denarna politika in Ekonomska in denarna unija, Sveučilište u Mariboru, Ekonomsko poslovni fakultet, Maribor, Slovenia
 25. Sisek, B. 2009. Strane izravne investicije u Hrvatskoj – uzroci neuspjeha, Zbornik radova Ekonomskog fakulteta u Zagrebu, Vol. 3, No. 1, pp. 90- 108, Zagreb, Croatia
 26. Spajić, F. 1998. Euro i utjecaj na hrvatsko gospodarstvo, Hrvatska zajednica računovođa i financijskih djelatnika, Zagreb
 27. Šimić, D. 2002. Europska unija – danas i sutra, Mala geografska biblioteka, Hrvatski zemljopis, Samobor, Croatia
 28. Tišma, S.; Samardžija, V.; Jurlin, K. 2012. Hrvatska i Europska unija – prednosti i izazovi članstva, Institut za međunarodne odnose – IMO, Zagreb, available on: http://www1.zagreb.hr/euzg/eu_publicacije/Hrvatska_i_eu_prednosti_i_izazovi.pdf
 29. Vujčić, B. 2003. Europska monetarna unija i Hrvatska, Masmedia, Zagreb, pp. 74
 30. Wisser, H.; Smits, W.J.B. 1994. A guide to international monetary economics, Edward Elgar publishing, Cheltenham Glos, pp. 127.
 31. World Bank (1), 2016, available on: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>