University of Economics, Prague

International Business

The Incompleteness of the European Monetary Union and its way to becoming an optimum currency area

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Declaration:

I hereby declare that I am the sole author of the thesis entitled "The incompleteness of the European Monetary Union and its way to becoming an optimum currency area". I duly marked out all quotations. The used literature and sources are stated in the attached list of references.

In Prague on ....

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Martin Verner

Acknowledgement

This page is be dedicated to my family who have been always supporting me during my studies, to my supervisor Ing. Pavel Žamberský, Ph.D., who has helped me with choosing the topic of my thesis and supervised on it, to respondents and everyone who supported me in creating this work.

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Introduction

The topic I have chosen for my bachelor´s thesis concerns the problems the European Union, more specifically, the European Monetary Union is facing. These problems or crises as they are often called, arise from different issues that root in long-time disproportions in terms of economic and political powers.

The first aim of my bachelor´s thesis is thus to describe the most important issues that serve as sources for the major crises and collapses the European economy has experienced over the recent years and put these into one complete and integrated piece of information. The reader will have the chance to realize that simple economic agents and differences in macroeconomic values are by far not the only factors that should be of concern to European authorities.

The second part of my thesis is then aimed to provide reader with information concerning various instruments and tools that can be implemented in order to correct on market defaults and thus impede the larger crises. First I will concentrate on analyzing the tools which are used on the national level by national economic authorities. Afterwards, I will assess the ways the European Central Bank tends to implement, all that while also evaluating the efficiency and completeness of such measures.

In the third part I will come up with possible solutions for the incompleteness of the European Monetary union. The main target is to provide such suggestions that would lead to completing the European Monetary Union in such a way that the crises could be either prevented completely or handled without forcing the countries in question to accept austerity measures that severely disrupt the general economic stability instead of helping to fix it.

In the final part of my Thesis I will compare the European Monetary Union with other existing monetary unions while analyzing differences between them which will shed more light on systems that prove themselves efficient. While analyzing the differences I will also try to determine whether the systems efficient in other monetary unions could also, under given circumstances, work in case of the European Monetary Union or what changes the EMU would have to undergo in order to make these systems work.

Even though I realize the topic is very broad and to fully assess the problem of the European Monetary Union one would have to go deeper to social sciences, history and culture of individual countries to completely understand where the differences arise from and what events and circumstances had preceded the current stand of matters, this thesis is limited to economic factors only and tries to analyze the problems from a single point of view represented by economic and political properties of presence and recent decade.

1. Sources of disruptions in the Eurozone

Let us begin with pinpointing the major reasons why the crises in the European Monetary Union are happening in the first place. Because of the incompleteness of the EMU, these sources of crises can´t be banished neither by instruments used on the Union level, nor, thanks to the competencies of national governments that have been lost by entering the EMU, on the national level. The following occurrences, therefore, represent a significant source of crisis, e.g. the one we could see in 2010 in the case of southern states, such as Portugal, Greece or Spain. The emerging debt crises caused severe liquidity shortages and these resulted in a great distrust from the part of financial markets. The results were massive economic recessions that, in the current form of the European Monetary Area, require further austerity measures, which even deepens the negative consequences of this deadly economic spiral.

In the next section, I am going to introduce, describe and analyze these sources, taking into consideration the impact they have on the overall economy of the European Monetary Union.

I. Asymmetric shocks

One of the basic sources for disruptions in the Union´s economy is an asymmetric shock between two or more countries. An asymmetric shock is a result of any event which has opposite influence on the aggregate demand for output of the countries in question. If the aggregate demand of one country declines while, at the same time, the aggregate demand of another country increases, we are observing an asymmetric demand shock. If the countries kept their initial levels of economic decision autonomy they had before entering the European Monetary Area, the tackling of this shock would be easier because valuation or devaluation of currency could be implemented thanks to the flexibility of exchange rates.

This measure would result in returning the aggregate demand back to its initial equilibrium. (De Grauwe, 2016, p.11)

Due to the loss of this instruments, which is the result of losing the economic autonomy of the national government, adjusting to changes in the aggregate demand inside of the European Monetary area becomes much more difficult. Even though there still exist automatic mechanisms that serve as the first response in terms of tackling the disruptions in the aggregate demand, (I will be talking about these mechanisms in the appropriate 2.II.) they are not sufficient to stop negative expectations of the financial market. The result of declining output will lead to doubts about solvency of the government which will further result into a significant increase in selling of government bonds thus bring a liquidity crisis into the country in question due to an increased interest rate. This crisis then causes a decline in consumption and government spending and leads the country into a severe recession. (De Grauwe, 2016, p.11)

The outflow of money in circulation from one country inevitably leads to inflow into another country. A country that investors would trust and whose government bonds they will be willing to buy. Thanks to this inflow the interest rates in the given country will decline and shift the aggregate demand further to the right. Therefore, we can clearly see an amplifying effect of these events on the difference between the aggregate demand of individual countries in Europe. (De Grauwe, 2016, p.11)

There are basically two kinds of asymmetric shocks. Those arising on federal and those arising on national level, both of which can have devastating impacts on the influenced economies. One of the examples of such asymmetric shocks appearing on federal level is the divergence between countries thanks to the primacy of the real interest rate effect over the real exchange rate effect, produced by the European Monetary Union during its first decade of functioning. „In order to overcome the former, the latter required the convergence of domestic prices, which failed to materialize owing to the presence in EMU economies of spatially fixed factors not influenced by price competition. “(Miroslav Jovanovic, 2011, p. 368), This was the reason why countries with higher than average interest rates could enjoy a boom of the economy thanks to low real interests. On the other hand, countries with lower interest rates didn´t experience such growth of their economies which created disruptions in the European economy. (Miroslav Jovanovic, 2011, p. 368)

Besides, the member countries of the European Monetary Union have also experienced a number of asymmetric shocks on national level. These can become also very destructive, especially if they are a result of unfavourable political decisions. As examples of such decisions I can cite the reluctance of the Great Britain to join the Economic Monetary Union or the initial boycott of the Lisboa Treaty by the Czech heads of state. Such tendencies might lead to a disintegration of the European Union as a whole and eventually, in the worst-case scenario, to the exit of certain countries from the Eurozone. (As is now the case of the Great Britain). (Miroslav Jovanovic, 2011, p. 369)

We can conclude that, under the given circumstances, the asymmetric shocks are more than likely to deepen and intensify what could seem as a minor economic problem in the beginning and „upgrade " it into severe economic recessions, influencing GDP and labor market while, at the same time, further disrupting economic stability of the Eurozone by amplifying the differences in output and price levels of individual member countries.

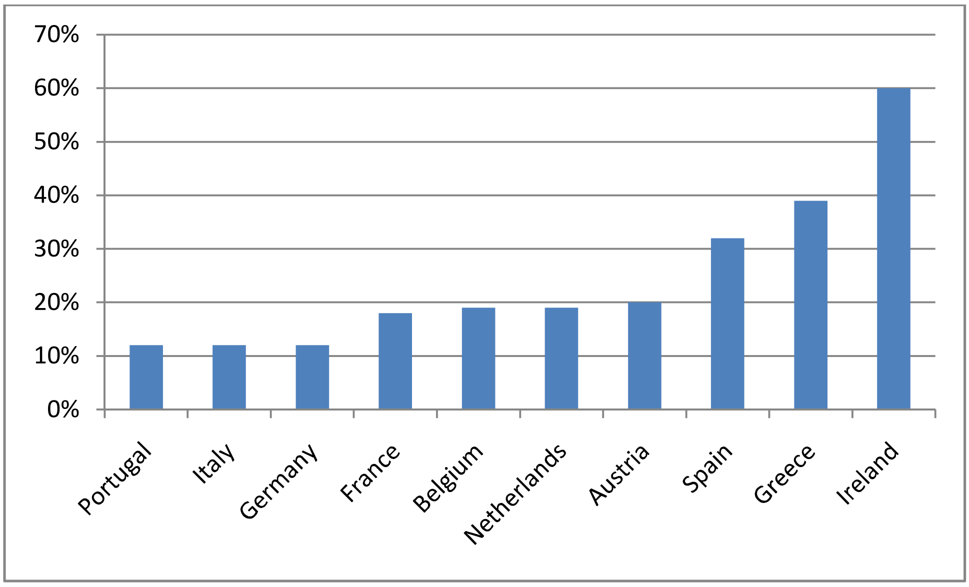
II. Uncontrollable boosts and busts in the EMU member countries

Unlike asymmetric shocks, boosts and busts are occurrences of an endogenous nature which means they are based on assumptions and forward-looking expectations of both the investors and consumers.

The problem with boosts and busts within the Eurozone is of a similar nature though, that I described in the case of the asymmetric shocks. If the optimism concerning the economic development of one country is high, it results in an increased inflow of money thanks to the purchase of government bonds by investors. The output increases as well as the prices and the economy experiences a „boom. "The opposite happens if market tend to spread negative mood about a country´s economy. The government bonds, in this case, are being sold, which pushes interest rates up, causes outflow of money from the economy and results in a liquidity crisis in the similar manner we discussed above in case of asymmetric shocks. (De Grauwe, 2016, p. 12)

A perfect example of countries that have been largely affected by a boom and bust phenomena in the last decade is Greece and Ireland. The countries that experienced the largest decline in economy thanks to the public debt crisis in 2010 had been experiencing an enormous economic growth thanks to flourishing banking system that provided cheap credit and start a rapid growth-period the target of which was to support further growth of sectoral profits, general income and political power of the country. After an over-exaggerated accumulation of a foreign debt, the bubble busted and the country found itself surrounded by the Eurozone where automatic stabilizers, which the country could otherwise have used under the assumption of flexible exchange rate, were switched off and financial markets led country to even more intensive economic depression. (Pagoulatos, G. 2014).

Figure 1:



Cumulative growth of GDP (1999-2007) European Commission (2010), (A Structured Framework to Prevent and Correct Macroeconomic Imbalances: Operationalizing the Alert Mechanism, Brussels, November)

Capital markets of the European Monetary Union serve much more as an amplifier of these problems rather than a solver. The result is, again, a flourishing economy in one country and a deep recession in another country which intensifies the differences between countries' economies and creates, in a long-term, an unsustainable economic space. (De Grauwe, 2016, p. 13)

Another point which is definitely worth mentioning in connection to the crises arising from uncontrollable boosts and busts and which makes a significant difference between this source of crises and asymmetric shocks is the following. While asymmetric shocks are a pure exogenous problem, which means a problem arising from the intrinsic changes of economic factors and the market, boosts and busts are rather a result of expectations of the markets that, thanks to their impact on the economy, have their own self-fulfilling nature. (De Grauwe, 2016, p. 12)

III. Labor market institutions structure of the EMU member countries

Obviously, there are other factors influencing the efficiency of the Monetary Union´s measures besides just exogenous and endogenous shocks. One of the most important factors that strongly influence one of the correction factors, about which I will be talking later (wage flexibility) are labor market institutions, more specifically, labor unions.

We distinguish basically three kinds of labor unions, every one of which has different impact on the change of wage and inflation in a country. These are centralized, decentralized and extremely decentralized labor unions. In case of an incentive to increase wages in a country in question, a centralized union seems to come up with the most reasonable demands, because its members are usually aware of the consequences an increase of a nominal wage would have on a real wage value (the real wage would barely increase due to the inflation). (De Grauwe, 2016, p. 20-21)

On the other hand, a decentralized labor union is much more likely to come with excessive claims on the wage increases because the members of one „section “of such decentralized union are aware that their claims will have only a small importance in terms of the impact on the actual increase of inflation. The problem arises, logically, when all of the sections follow the same direction which then results in the same consequences as if the centralized union had realized such excessive claims. At the same time, each fraction of the union would fear putting its members at disadvantage by being the first stepping down from their excessive claims because there is no guarantee other fractions would follow the former one´s example. Therefore, the situation in case of a decentralized labor union´s presents undesirable costs to the Eurozone as a whole. (De Grauwe, 2016, p. 20)

Anyway, we face a completely different scenario in case of an extremely decentralized labor union. Precisely because of such a low degree of centralization wage claims have direct impact on the employment of members of the union in question (as the result of impact on the company´s competitiveness in the given geographical area). Therefore, there is quite a high probability that the labor union will moderate its claims and adjust them to the employment prospects of its members. (De Grauwe, 2016, p. 21)

In conclusion, the countries with either highly centralized or, on the contrary, extremely decentralized labor unions tend to handle the shocks in aggregate supply and demand in a much more efficient way than the countries „hanging in the middle "in terms of level of centralization. For this reason, the latter represent also a source of significant costs to the European Monetary Union in case shocks occur.

Another important observation is this: In case inflation changes based on the claims of labor unions, problems and discrepancies may arise even though the shocks are of an absolutely symmetric nature. Let´s see two countries where the shift in aggregate supply goes in the same direction and is of a same value. The difference between the countries is the level of centralization of the labor unions. While the one is strongly centralized, the other is rather decentralized. Given the information mentioned above the result of corrections on this shock will be a slight increase in inflation in the former country corresponding with a very high inflation rise in the latter. (De Grauwe, 2016, p. 21)

Using this example I was trying to show the reader how differences in the labor market structure may cause problems even when the changes in output in individual countries are absolutely symmetric. Therefore, this property of the labor market should not be missed by supervising European authorities.

IV. Legal structure of the EMU member countries

Another factor that tends to deepen the differences between the member countries, and thus prepares an environment where economic crises are more likely to happen, is a legal system which can differ widely from one country to another.

One of the aspects of the legal system that is often a cause for discrepancies are mortgage markets operating in a very different way in individual countries. Since the laws provide banks with a different level of protection, mortgages become a financial product with a different level of risk, which can lead to significant disintegrations in real estate market prices. Similarly, the legal implications determine the way in which way and to which extent the interest rates are adjusted if needed. For this reason, measures taken by the European

Central Bank aimed at changing the interest rates can have a different impact on markets across the whole Union. (De Grauwe, 2016, p. 21)

A significant difference can be also observed in the way companies finance their commercial activities. This difference arises mainly from the difference between the Anglo-Saxon and Continental legal tradition. While countries coming from the countries with the Anglo-Saxon tradition would finance their activities through a direct access to the capital markets (which assumes a high level of development of local equity and bond markets, as well as a high liquidity), the countries operating in the countries with the Continental legal tradition use mainly the financing channel relying on the banking system. Therefore, changes in interest rates are, once again, transmitted in a very different manner across countries of the European Union and the competitiveness of the companies is affected in a different way. Since the shifts in the inflation rate will rather affect the capital market, the effect of correction policies will be clearly observed in the countries with the Anglo-Saxon tradition more severely than with the ones relying on the Continental system. (De Grauwe, 2016, p. 22)

We can see further analysis of this issue in the work of La Porta et al. La Porta goes further in his research and distinguishes between four various legal systems. These are English common law, French civil law, Scandinavian civil law and German civil law. He concluded that, in terms of shareholder´s ability to vote out directors of English common law companies in order to secure his investments, the English common law is the most favorable and the French civil law the worst. A difference arises when we come over to the pattern of enforcement though. In this case, Scandinavian civil law has the most rigorous law enforcements system while the French civil law offers the most relaxed one. Using data comparing relationships between shareholder rights, creditor rights and law enforcement with the availability of financial assets and concentration of the ownership, two conclusions have been established. While countries with poor legal protection of shareholders and creditors are focused on corporate ownership, countries with relaxed law systems have less significant and narrow capital markets. (Cecchetti, Stephen G, 1999)

Therefore one comes to the same conclusion as above. The English common law system ensures the large and developed capital market as the main source of investments for companies while within the continental law tradition, banking tends to serve as the principal source.

2. Correction instruments used in the Eurozone

After having assessed the main sources for disruptions in the functioning of the European Monetary Area, I will now dedicate the second part of my bachelor´s thesis to explaining the nature of various correction instruments that are being used on the national as well as the Union level. I will also devote the first sub-chapter to the short evaluation of the efficiency of the given instruments with regard to the reasons for this level of (un)efficiency.

I. Efficiency of currently employed instruments

Without implementing any serious economic data or conducting any sort of deep economic analysis one can easily determine that the currently employed correction instruments whose purpose is to completely avoid the crises and economic disruption within the European Monetary Area or at least to minimize the impact of such problems fail to effectively serve their purpose. Taking into account the nature of these correction instruments, it is necessary to ask if, within the given economic environment it is actually possible for these measures to effectively fight the issues. I will analyze every one of the main correction measures more in-depth on the following pages but in general I can assume that the most important reason for the inefficiency of these measures are differences in the member countries. Let it be differences in labor markets which make it impossible for the European Union to come up with effective strategies since the tendencies in terms of employment and divergent wage have different effects on the employment levels of given countries.

We encounter a similar situation when it comes down to correction instruments accepted on national level. I have on mind particularly the issuing of government bonds in this case. Because of distinctive financial and legal systems implemented in the countries in question it makes it almost impossible for the European Monetary Union, even after making the member countries abolish their own individual currencies and accept Euro, to come up with a measure which would lead to a less „painful“ and riskless adjustment with a certainty of having the same impact on every individual member country. Because of perceived inflation risks, the financial markets tend to minimize the importance of the general Union tie but rather take into account the inflation levels of individual member countries as if they were single, unconnected economies. This results in countries issuing different kinds of government bonds so that these correspond to the market situation within the borders of these countries and thus become more appealing for investors. This was especially the case after the start of the sovereign debt crisis in 2010. (De Grauwe, 2016, p. 29)

Another problem with implementing correction instruments is connected to a different pace of economic growth in the member countries. With the huge differences we witness when we have a look at the cumulative growth of GDP within the given economies it becomes clearly visible even to a person who is not acquainted with the topic that with such a difference in development and growth of individual economies it is practically impossible to come up with a universally working measure which would be efficient and which would be freely accepted by all of the member countries on a voluntary basis, at least under the given circumstances and at the current development level of the European Monetary Union. (De Grauwe, 2016, p. 3031)

I have divided the correction instruments into two groups according to their affiliation to the Union or national nature and I will assess each and every one individually while also taking into consideration their efficiency.

II. Instruments used on the national level

i. Government bonds

Even though the member countries lose a significant part of their own monetary independence, which we can notice especially on their inability to value or devalue their currency because they no longer have control over it, they still retain certain usable instruments of monetary policy. One of the main national correction instruments that they still have to their advantage is the possibility to issue government bonds. By issuing bonds the given country can inject more money in the economy and in this way suppress negative consequences of various economic shocks. This measure can, especially in a short-time perspective, help the economy overcome sudden economic downturns and keep the initial pace of growth without really hurting the economies of other member states which makes this measure, at least on the first sight, highly desirable.

However looking a bit deeper into the economic relationships and motions we notice some slight and some severe problems concerning the imperfection of this correction instrument.

The main problem that arises for the government which decides to issue a bond is the fact, that this country, as a member of the European Monetary Area, no longer has control over issuing this currency. Therefore when it comes down to a situation where this country is prompted to pay back its debt, they have basically no possibility to assure the bondholders about paying back the debt. From this point of view the costs of entering the Monetary Union seem to be quite significant. The advantage of the countries who can issue debt in their own currency is clear. The reason for this is the presence of a Central Bank in countries who kept their autonomy in terms of issuing their own currency. These central banks can intervene in case of a liquidity shortage and make sure the bondholders will be paid back which the bondholders rely on and therefore even their trust in the bonds and in the country´s economy is much stronger than in the case of the EMU member countries who, unfortunately, can not provide this certainty.

Country that is fully integrated within the European Union (such as Spain for example) can come to the situation where the bondholders fear the possible default and start selling their government bonds. There is no Spanish Central Bank to interfere which will lead to a severe liquidity shortage in the Spanish economy and eventually can result in a complete default. In this case the efficiency of government bonds within the framework of the European Monetary Union seems to substantially lack on efficiency and in the worst cases can even be counterproductive. (De Grauwe, 2016, 9-10)

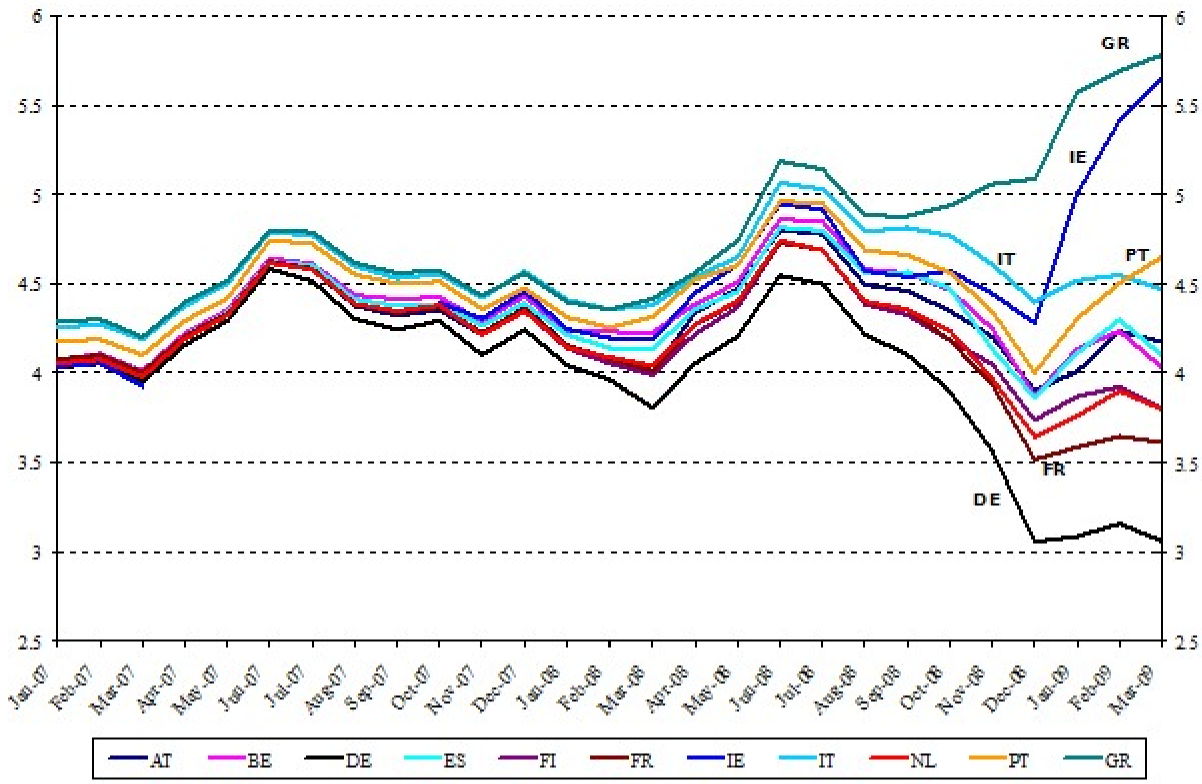
On the example given above one can see the actual incompleteness and brittleness of the Monetary Union´s system. Issuing government bonds under the supervision of the European Central Bank becomes costly, especially for the countries, the economies of which are likely to be a subject of distrust among the investors for which there is no correction measure (given the fact that the country lost its own monetary autonomy).

The way of handling public debt via issuing of government bonds has changed drastically since creating the EMU and furthermore after the sovereign debt crisis in 2008. After abolishing domestic currencies and joining the EMU, the currency risk when issuing government bonds disappeared thanks to the unification under one single currency. This has led to an intensified convergence of the bond market. The main concerns for investors at this moment became liquidity risk and default risk. The growing trust in government bonds, which arised from the disappearance of the currency risk, led to a standardization of long-term bonds as the most popular monetary instrument and further contributed to financing the public debt, thus supporting the growth of the GDP. (Badurina, Svaljek, 2012, p. 78)

The financial crisis managed to completely change the stabile bond market situation. After first outbursts of the crisis, the requirements of the EMU member countries for borrowing widely exceeded the standard we had known from before and suddenly the offer of various sorts of government bonds largely exceeded its demand by the investors. In order to make the bonds more attractive for investors and combat the ever-growing competition on the international EURO bond market individual countries had to come up with measures which would make their own bonds unique in some way. Some countries (like France, Greece for example) have decided to put in place so called government bond auctions the main purpose of which was to provide government bonds for an appealing price set by the demand itself. Other countries like Italy decided to solve the sudden competition problem with more flexible issuance procedures. The idea was to issue bonds in short periods rather than once in a couple of years as used to be the standard before that. A new concept contained also organizing regular meetings with investors where information was provided. (Badurina, Svaljek, 2012, p. 80, 81)

Another one of the problems with the government bond market is its incomplete convergence within the European Monetary Union framework. Even after having introduced the conditions under which the EMU was formed (debt level should build up to maximum of 60 % of the gross domestic product, budget deficits should under no circumstances exceed 3 % of the country´s GDP and hold the domestic inflation levels below the given 2 % rates per annum) the original inflation levels in the member countries combined with unfavorable budget deficits and high debt levels still had a strong impact in the financial market situation and thus made it impossible for the markets, thus for government bonds to converge completely. The above mentioned „adjustment“ measures undertaken by the member countries in order to increase the attractiveness of their own bonds in the European market did not contribute to the convergence either. (Balli, 2009, p. 332-335)¨

Figure 2:



Ten-year government bond yields of Eurozone countries (monthly averages; percentages per annum; January 2007-March 2009), (Checherita, Attinasi, Nickel, What explains the surge in euro-area sovereign spreads during the financial crisis of 2007-09?, [online] January 2010, [cit. 25.04.2017], retrieved from http://voxeu.org/article/how-financial-crisis-raised-eurozone-bond-spreads)

On the figure above we can see how the sovereign financial crisis negatively contributed to the widening of the spread of the European bond market.

ii. Wage and labor flexibility

After having described the principles of using government bonds as a correction measure in times of crises and economic disruptions now it is the right time to come over to another instrument which can be applied on the national level: Wage flexibility and labor mobility.

After having abolished national currency and thus given up on the possibility to influence the exchange rate of its currency, a country can still control its wage policies and thus influence the situation on the market. If for any reason the product in the given country becomes less competitive and thus the demand for this product in the international market declines the most probable outcome is an increased level of unemployment. In that case, unemployed workers can reduce their wage claims to the level necessary for the product to become competitive again by decreasing its production costs. The supply of product will increase whereas in the other country where the demand for labor is excessive, the wage rates will grow and that will eventually result in decrease of the product supply. In this case a new equilibrium between the two countries is found and the market gets stabilized again.

Perhaps, in order to be completely precise, the mentioned correction instrument is rather achieved as a result of natural market relationships than as a result of restrictive national policies. Whether wage policies are flexible or not is to a great extent influenced by the labor union structure in the given country. (De Grauwe, 2016, p. 4-5)

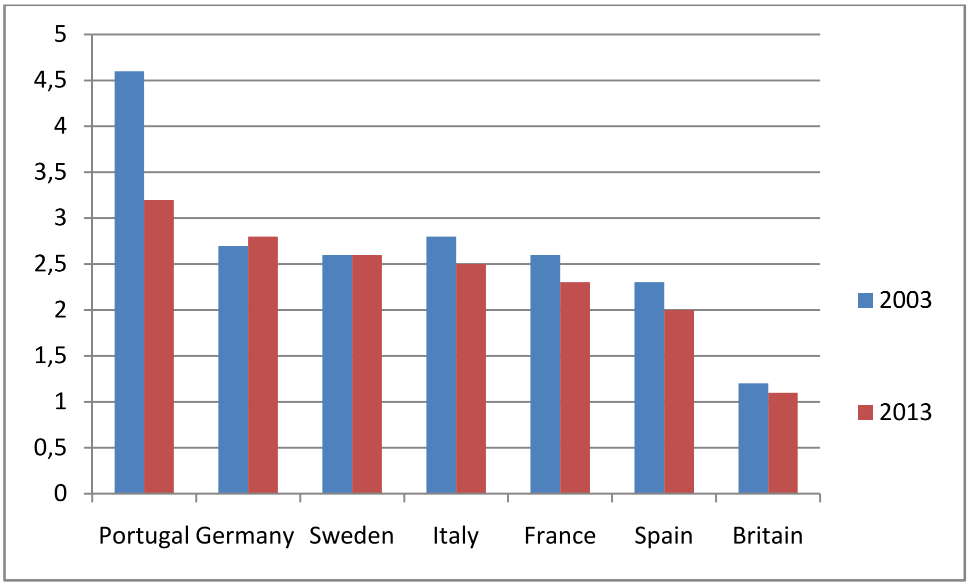
We come to an interesting question in terms of what are the differences in impact of wage policies between countries with closed economies and countries who are members of a certain monetary union. If we have a look at a closed economy first, the change in wage policies affects the rates of employment mainly in terms of influencing marginal costs, interest rates and inflation and thus also the aggregate demand. In such case, a Central Bank can step in and come up with a response which determines to what extent employment responds to changes in wage levels. This concept is also called endogenous policy channel. The actual impact of this channel is the main difference between the alone-standing country and a member of monetary union in which the central bank is absent and therefore this channel is practically nonexistent. On the other hand, in case of an open economy, the decrease of marginal costs can (as I pointed out above) increase the competitiveness of domestic firms and increase their success in terms of selling their product on the international market. (Galí, Monacelli, 2016, p. 3839, 3840)

We can deduct that the missing possibility of having measures undertaken by a central bank is partly made up for by the increased integration within the monetary union´s market where this so called competitiveness channel outweighs the mentioned deficiency.

The main concern coming up in connection to the efficiency of wage flexibility as a correction instrument is the fact that it only copes with some assymetric shocks but is completely helpless against other sources of economic disruptions I have mentioned in the first chapter of my thesis.

Let me now move to another subject of this sub-chapter which is the labor mobility. This concept assumes open borders which is the case of countries who are members of the European Monetary Union and further works on similar principles as the wage flexibility. Within the labor mobility concept the workers can simply freely move within the Monetary Union´s area and thus avoid the impacts of economic consequences the assymetric shocks typically have. Without any needs for further wage policy changes or in certain cases together with implementing them a new equilibrium in terms of offer and demand for the given product can be easily found. (De Grauwe, 2016, p. 5)

Figure 3:



Employment protection indicator, Permanent workers, 6=most restrictive, (the Economist, Labor reforms in Europe, Doing better slowly, April 2015 [online] April 2015, [cit. 25.4. 2017], retrieved from http://www.economist.com/news/europe/21649494-other-european-countries-have-moved-faster-france-labor-reform-doing-better-slowly)

Similarly to the case of the wage flexibility , the labor mobility also contains serious deficiencies in terms of serving as an economic crisis correction instrument. Same as wage policies, in case of problems other than assymetric shocks connected to production, the labor mobility is practically helpless. With labor mobility we encounter many other problems which are not connected to economic aspects on the first sight, which are significant nonetheless.

One issue is different labor laws in individual member countries which may make it difficult for individuals coming from foreign countries to easily adjust to local conditions and thus make the overall labor system in the country accepting foreign labor power quite inefficient. Correspondingly, another problem which used to be the case rather in history but with the current refugee crisis becomes very important again, is the composition of the labor power and willingness to adjust to local conditions. Not only the labor laws mentioned above, but cultural and country-specific aspects which are necessary for the country to operate on the maximum efficiency. Not only are foreign workers often under-qualified but in many cases they can hardly be considered an actual labor power based upon their inability to even speak the language and thus actively participate. (Treu, 1992, p. 503, 54)

This reality shows that labor flexibility can in certain scenarios create more disruptions for the markets than actually correct on them. There is another reason underlying this fact though. When we have a look at the current population composition of the European Monetary Union or European Union as a whole where Schengen Area is in effect we notice that the most of labor movements is directed not in directions which would be desirable to offset production differences and combat assymetric shocks, but in directions which indicate the desire of workers to increase their life standard and earn more money in countries which are considered civilized and highly developed. As an example I can name workers from Eastern Europe or Balkan countries travelling to Scandinavia or Germany with the vision of a higher and easily earned salary.

Question is if we in this case can talk about inefficiency of labor mobility concept or lack of restrictions or measures taken on the Union´s political level the target of which it would be to prevent this reality from happening.

Another issue discussed in relation to labor mobility is a strong centralization of economic activities resulting from it. With the ever-growing increase of development in technologies and industry, the economic activities tend to be concentrated in certain areas while other regions are left behind with no clear possibility of catching up. This is especially the case of some rural areas in developed countries or even much larger rural areas in not developed countries which don´t have a developed industrial production, nor service sector, and whose labor power prefers to travel to other countries as mentioned above.

III. Instruments used on the Union Level

i. Open market operations

Out of the three instruments described in this section the Open market operations are considered being the strongest and the most important ones in order to achieve the short-term as well as long-term economic targets of the European Monetary Union. The principle of this instrument is the same as in case of an alone-standing country where the Central Bank would be in charge of this instrument which would then be used on the national level. By joining a common monetary area, the country gives up on control over this instrument and hands it over to the organ who is responsible for the Union monetary policies which, in the case of EMU, is the European Central Bank. The actual implication of open market operations contains buying and selling of marketable securities with the idea of either increasing or reducing the money market liquidity. Surprisingly, the European Central Bank had not used this instrument frequently until January 2015, where the so called „Quantitative Easing“ program was put in force (also known under QE). This program basically comprises a strategy of buying or selling bulks of government bonds with the idea of selling them again under favorable circumstances in the future. (De Grauwe, 2016, p. 205)

This system of „coordination“ between national and Union correctional instruments gives enough room for decentralization of the overall execution of monetary policy. While the Central Bank controls the general money base and money liquidity within the Union´s borders, individual national banks retain their rights of control over issuing their own government bonds and thus keep their own liquidity situation under the direct governmental supervision. There is a broad variety of open market operation instruments implemented with regard to different economic targets. These instruments differ mainly based on the duration for which they are put in force. This way we distinguish weekly open market operations the target of which is to manage the overall financial system liquidity and generally signal the standpoint of current monetary policies. There are also instruments used on the monthly basis which aim to serve as refinancing operations supporting the main weekly implemented instruments. In case of the long-term refinancing operations a limited portion of the ESCB´s liquidity should be provided. The last basic type of open market operations instrument is used less frequently but still retains its importance because it allows the Union to adjust the structural position of individual national banks. (These operations are used in order to handle the sudden fluctuations in the market.). The last mentioned instrument is of a short-term nature and is reached on the basis of tenders where the number of parties is limited, e.g. bilateral operations. (Enoch, Hilbers, Kovanen, 1998), (De Grauwe, 2016, p. 207, 208)

Figure 4:

Instrument	Outstanding amount (EUR millions)
Covered bond purchase program	9,264
Securities market program	98,443
Covered bond purchase program 2	5,942
Covered bond purchase program 3	216,114
Asset-backed securities purchase program	24,331
Public sector purchase program	1,497,884
Corporate sector purchase program	81,044

The list of open market operations, Reference date: 21 April 2017, (European Central Bank, Eurosystem, Open market operations, [online], April 2017, [cit. 25.04.2017], retriever from: https://www.ecb.europa.eu/mopo/implement/omo/html/index.en.html)

ii. Standing facilities

Standing facility is another correctional instrument which requires a co-operation between the European Central Bank and individual national banks. This instrument is of a short-term nature and basically enables the European Central Bank to either provide or accept the so-called overnight liquidity. The marginal lending rate is usually set around 1 % above the interest rate and is fixed by the Governing Council. National banks are then allowed to borrow liquidity (using the instrument of „marginal lending facility“) while paying the marginal lending rate in order to handle sudden „overnight“ liquidity shortages. The same way, the national central bank can decide to make a deposit at the European Central Bank (using the instrument of „deposit facility“). In this case, the interest rate on the deposit facility is set usually 1 % below the interest rate implemented by the given bank. The idea behind this instrument is to encourage banks to provide credits for households and firms and thus increase the velocity of money in the market and further provide favorable conditions for increasing the volume of transactions and thus support trade within the borders of European Union in the big picture. Furthermore, by changing the interest rate applied by the European Central Bank the overall interest rate structure within the European Monetary Area can be influenced. (De Grauwe, 2016, p. 205)

This combination of facilities is particularly important in a situation where the demand for euro is volatile and the interest arbitrage is experiencing an imperfection. A wrong implementation of this correctional instrument may also be particularly dangerous for the stability of the European money market, because if the interest rate set by the ECB is perceived as unfavorable a less incentive for the individual banks appears and these will be discouraged from managing their liquidity problems via the interbank markets. That could lead to disruptions in terms of undermining the liquid market for the euro currency. (Enoch, Hilbers, Kovanen, 1998)

Figure 5:

Marginal lending facility rate	0,25 %	Use of the marginal lending facility	207 millions EUR
Deposit facility rate	-0,4 %	Use of the deposit facility	568,78 millions EUR

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The application of the standing facility correctional instrument within the Eurozone framework, (European Central Bank, Eurosystem, Standing facilities, [online], April 2017, [25.04.2017], retrieved from: https://www.ecb.europa.eu/mopo/implement/sf/html/index.en.html)

iii. Minimum Reserves

The last one of instruments used on the Union level encapsulates the minimum reserves the European Central Bank imposes on individual national banks and thus can affect the overall liquidity and money stock in the individual countries´ economies. Since the European Central bank is largely built upon the philosophy of pre-EU German Bank, most of the monetary policies including the Minimum Reserves requirement was accepted very cheerfully from the part of the „Bundesbank," not as much from the part of other commercial banks though. Therefore, in order to avoid the commercial disadvantage the banks would be facing against banks who were not supposed to be the subject of these minimum reserves (which was the commercial banks´ main complaint) the ECB decided to pay interest on these minimum reserves in order to increase their attractiveness. This minimum reserve requirement doesn´t necessarily serve as an instrument affecting the overall monetary policy or having an immediate effect on the money market, its main goal is rather to facilitate smooth the short-term interest rate fluctuations. Another function of minimum reserves gives the European Central Banka possibility to have control over the bank credit which further affects the investment incentives in the market. (De Grauwe, 2016, p. 209, 210)

The principle on which the minimum requirements are set is related to the month-end balance sheet transaction information. The requirement is set as the average of daily reserve ratios in order to make the reserve directly correlated to the market behavior and not to disrupt the smooth development of the market. (De Grauwe, 2016, p. 209)

As we might conclude out of the description of the three main instruments used on the Union level, not even they are able to provide a complete solution for the crises and disruptions in the European Monetary Area economy. The manner in which they combat the market discrepancies are limited to rather short-term solutions and even these solutions affect mostly just certain money market areas. By indirectly controlling money stock, having control over money liquidity and influencing the bank credit by the measures mentioned above the European Central Bank is able, to a certain extent and with a strong coordination with individual countries´ central banks, influence the macroeconomic indicators like inflation, unemployment or amount of money in the market.

It is not able however, to deal with intrinsic problems the economies of the member countries are facing. These problems arise not from sudden discrepancies of the market as much as from their actual sources. The distrust and investment expectations are the biggest burden of the current economy of the European Monetary Area. These expectations are not merely result of current economic problems but rather long-term issues related to government debt management and possible default of economies. Sudden booms and busts during the second half of the first decade of this century served as a great example of to what extent expectations and distrust among investors combined with the EMU´s inability of controlling the bank system efficiently can contribute to a sovereign financial crisis.

While the European Central Bank was attempting to control the inflation close to the 2 % threshold, the regulation and supervision of the banking system conducted on the national level failed to keep the banks „in their place," which led to significant increase of money base not only in the EMU member countries, but also in UK and the ever-growing expansion of credit led to creating vast bubbles which eventually burst in 2008. With the financial crisis happening, the European Monetary Area was forced to come up with new ways of handling the issues some of which stood out. European Central Bank serving as the Lender of last resort was one of them along with the new concept of the „SMP", a government bond purchasing program, but all of these faced the loss of credibility and distrust among investors based on the preceding occurrences. (De Grauwe, 2016, p. 13)

After having analyzed the main problems and sources of disruptions within the European Monetary Area´s economic framework and having described the tools which are and have been implemented on the Union´s as well as national level, I will now attempt to describe the ways in which the EMU could become more efficient in terms of controlling and supervising the economy. I will describe two possible ways of reaching this goal, evaluating the possibilities and deciding as to whether or not (or to what extent) the steps needed in order to reach those scenarios are likely to be undertaken within the current European Monetary Area situation.

Figure 6:

Reserve maintenance period:	27. 07. 2016 to 13. 09. 2016

Average reserve requirements (EUR millions)	116,686
Remuneration rate	0,00 %
Penalty rate for deficiencies	2,75 %

An example of minimum reserve requirements set by the ECB during the given period, (European Central Bank Eurosystem, Minimum Reserves, [online], April 2017, [cit. 25.4.2017], retrieved from: https://www.ecb.europa.eu/mopo/implement/mr/html/index.en.html)

Figure 7:

Reserve maintenance period ending in:	July 2016
Required reserves	115,839
Excess reserves:	541,622
Deficiencies	2
Current account holdings	657,460

Reserve maintenance statistics (EUR millions), (European Central Bank Eurosystem, Minimum Reserves, [online], April 2017, [cit. 25.4.2017], retrieved from: https://www.ecb.europa.eu/mopo/implement/mr/html/index.en.html)

3. Ways of reaching completeness and efficiency in the EMU

This chapter is dedicated to the main idea and requirements which need to be met in order to overcome the current problems of the European Monetary Area and create a Union in which there would be no more room for crises we have experienced over the last couple of years. The first part deals with the concept of optimum currency areas, its main principles and its possible problems in relation to application on the current EMU. The other one discusses the well-known and widely discussed topic of budgetary union which could be the ultimate solution for the issues we have faced.

I. Theory of optimum currency areas

In order to fully understand the principles on which an ideal common monetary area should work one needs to get acquainted with the so-called Theory of optimum currency area, built upon contributions of Robert Mundell.

Within this theory, a set of criteria has been created which basically determines under which conditions the given monetary area will be efficient in conducting its policy. These conditions must be met by all the member countries in order to make it possible to set a unified direction for economic policies which could be then easily applicable on all the member countries. These conditions have been created gradually by Mundell and his successors.

The most important ones are the following: mobility of production factors, degree of openness of the economy, degree of diversification of the production, they are then followed by other factors such as flexibility of prices and salaries and political integration, with the last one being maybe the most important precondition for joining the common monetary area. According to the definition of the Optimum Currency Area arising from the conditions mentioned above, the European Monetary Area does not constitute such Area, mainly due to its inability to fulfill the condition regarding the labor mobility factor and political integration. Not only is the mobility of labor among member countries significantly lower as in the case of „similar“ monetary areas such as Canada or United States (even though the comparison is not quite exact because in case of the mentioned other factors, especially different grade of political unification, come to play) but even the mobility within these states themselves is unfavorably low. Another serious problem arising in connection to the European Monetary Area is the lack of budgetary unificiation, but I will be dealing with this problem further in the appropriate chapter. Before moving onto the outline of the ultimate solution for the European Monetary Area (budgetary Union), let´s now have a look at the two most important principles of the optimum currency areas´ theory and let´s see how these factors contributed to the current setting of the economic and political situation in the European Union as a whole. (Geza, Vasilescu, 2011, 3-6)

As we will see, these factors can under certain circumstances and combined with other less favorable factors cause further problems for the economy rather than contribute to the stabilization of the overall situation.

i. Trade integration and symmetry

An integral part of the optimum currency areas ´theory is the growing trade integration and corresponding symmetry of the markets. According to Mundell´s theory the assymetric shocks should be appearing less and when reaching a fully integrated market situation there should be practically no more room for any sudden or unexpected market movements.

We can use once again an example of two countries trading with each other. Given the fact, that a large portion of European Monetary Area´s trade portfolio consists of intra-industry trade and the current market is characterized by imperfect competition and economies of scale, the countries often trade products of a same nature. Therefore in case a demand shock occurs, both countries should be affected in a similar way. (De Grauwe, 2016, 24)

However there is also an opposite theory concerning the effects of the trade integration and symmetry and their effects on the environment of the EMU´s economy. A theory , to a large extent, undermines the correctness of implication of the Optimum currency areas´ theory on the European Monetary Area setting.

Based on this theory another effect of trade integration comes to play, a regional concentration. With diminishing obstacles to trade there is a great incentive to profit from economies of scale which leads to localization within certain (the most favorable) areas with the aim of achieving the greatest profit. To back up my information I´m providing the table showing the degree of regional distribution of auto production comparing the situation in Europe and the United States. While the degree of trade integration is undoubtedly much higher in the United States than it is in Europe, so is the regional integration of industrial production. (Krugman, 1991)

Figure 8:

USA	%	EU	%
Midwest	66,3	Germany	38,5
South	25,4	France	31,1
West	5,1	Italy	17,6
North-East	3,2	UK	12,9

(Krugman, P. 1991, Geography and Trade, Cambridge, MA. MIT Press.)

It has been proven that increasing trade integration leads to increased regional concentration but on the other hand it is important to say that this regional concentration is happening within a framework where actual geographical borders tend to become less and less important therefore the occurrence of a demand shock will affect the countries in question in the same way in any case. Within the given regions the assymetric shocks are still not prevented from happening however with ongoing degree of trade integration the symmetry is demonstrably growing and the assymetric shocks are thus, less likely to happen. (De Grauwe, 2016, p. 26)

ii. Openness of trade and the costs of the EMU

After having described the trade integration and its relation to the symmetry of shocks appearing in the European market we can now evaluate how this pillar of optimum currency areas´ theory is costly for the countries entering the EMU. We can safely say that growing openness of country (trade integration) leads to the less probability that assymetric shocks will occur. We can also safely say that by entering the European Monetary Area (or any common monetary area for that matter) encapsulates the loss of one strong instrument of monetary policy, currency depreciation/exchange rate affection). The question is as to whether or not this loss will be costly for the entering country with regard to the degree of her openness.

Based on the premise that the country has to meet certain conditions regarding the level of openness even prior to its enter to the EMU we deal only with relatively „open countries“ within the EMU framework. At the same time we can deduct that based on the strength of impact on the aggregate demand a currency depreciation would have, the open country would be much more affected by the currency depreciation than a closed economy and the wage-price spiral would be launched. Therefore an exaggerated or even a systematic use of this correction tool in an open economy will, in the end, have a negative impact on the price and wage stability and could cause sudden disruptions or crises which could put the country in question in trouble. (De Grauwe, 2016, 49-50)

The conclusion out of the above mentioned is that entering the European Monetary Area as a country with a relatively open economy is less costly than in case of a close economy where the loss of the exchange rate as a correction instrument would cause more harm. We now have to come back to the previous chapter where I outlined the Krugman scenario where the growing openness of a country could lead to regional concentration of industrial activity and thus to assymetric shocks.

If we decide to stick to this theory and question the probability of the diminishing geographical border importance then the costs of entering the European Monetary Union under the given conditions would be much more significant. Even in this scenario we can come up with a counter-theory though. Even if we assume that the growing trade integration, in fact, contributes to the increase of assymetric shocks occurrences, the actual loss of the exchange rate instrument will be able to offset the consequences within highly integrated economies. Therefore we are safe to deduct that the growing openness of country, or in other words, trade integration is favorable towards further growth of the economy and it is equally safe to assume that this condition is indeed crucial for the European Monetary Area in terms of optimizing its efficiency. (Krugman, 1991) (De Grauwe, 2016, p. 50-51)

II. Budgetary Union

Together with the concept of the European Central Bank serving as a Lender of last resort, a unified budgetary union represents the most important way of completing the current European Monetary Area and bringing stability to its economy.

If national budget and debt become an integral part of a policy carried out by one supranational institution (in this case probably the European Central Bank) the probability of default will decrease for all of the countries because the Central Bank will serve as a fiscal authority within the European Monetary area´s framework with the right to issue debt in the currency which would be under full control of this authority. The second reason for the budget unification is the possibility to redistribute wealth if needed. That means the countries would no longer be forced in to default in case of a sudden liquidity issue because these would no longer appear. If any member country were to experience such a problem, the given authority (the ECB) would be able to redistribute part of the common wealth collected within its fiscal/budgetary authority and help this country overcome the issue before any more serious financial problems occur. (De Grauwe, 2016, p. 132)

For the fiscal and budgetary union to really achieve the goal of correcting on the shortcomings the EMU is currently facing, following set of rules and conditions should be filled. Some of them have been, at least to a certain extent, already put in place.

First of all the budgetary union should fully replace the national central banks in terms of setting appropriate fiscal rules, coordinate policy and supervise over following these policies. Practically, this means setting boundaries for value of public debt as a part of the GDP etc. There should be also an effective crisis resolution mechanism which could be embodied within the European Stabilization Mechanism. When the country faces default, it could simply apply for support from the ESM which could significantly decrease the risk in case of markets´ disruptions. The third important element is a joint guarantee for government debt. This concept consists of short- term or long-term duration of the guarantee and various amount of debt which would be then covered by these guarantees. The most discussed idea coming up in connection to this concept is the so called Eurobond which I will be dealing with in the next subchapter. The fourth element is the fiscal equalization and the transfer mechanisms between the member countries, a concept the idea of which I described above. It is yet another way of handling the risk of default by redistributing budgets on the international level under the direct supervision of leading EU´s organs. And the final element is connected to a larger EU budget and European taxes. This means, simply put, increasing the government budget at the Monetary Area´s level combined with collecting a new EU tax. This element would require, naturally, a much wider shift of responsibilities from the national governments to the EU or level, therefore it might take, under current circumstances a long time before it will be achieved. (Fuest, Peichl, 2012, p. 3-7)

In the following subchapters I will be dealing with further factors the budgetary union should respect as well as with the other concept crucial for the completion of the European Monetary Area, which is the „Lender of last resort“ function of the European Central Bank.

i. Joint common bonds at the EU level

The idea of a bond issued in a common currency based on a mutual consensus of participating countries has become a widely discussed topic over the last years, especially because it might solve the problem that countries issue debt in a currency they have no control over. This concept is also very appealing for other reasons, particularly because the liability for the issued debt is joint and shared among the participating countries which is the reason why the risk of default arising from the lack of liquidity is becoming significantly lower than in case of classic government bonds. Correspondingly, the self-fulfilling debt crises based on the distrust and investors´ expectations can be completely avoided. (De Grauwe, 2016, p. 132-133)

This concept requires a strong political unification and creation of supervisory and regulatory organs on the Union level first because otherwise various risks connected to this concept come to play. First and foremost, it is a moral hazard. Countries who face a substantially less favorable economic situation than the others with whom they decided to issue the eurobonds with can use this increased insurance in the form of the shared responsibility and tend to issue an excessive amount of debt which would eventually lead to similar crises we experienced after 2008. Furthermore, the question is as to which extent the guarantee underlining the eurobond is credible. This could be the issue especially if the issuing member states provide each different levels of guarantee. In case a creditworthiness concerning one country is questionable, the whole eurobond might be questioned as well. In order to solve these issues the best idea would be to leave countries with a certain level of dependence on the financial market which would mean they are forced to stay „disciplined“ while the other part of their debt would be dealt with through the common issue of eurobonds. (Gilbert, Verkaart, 2013, p. 17-19)

ii. Joint Banking Union

A Joint Banking Union is another element which would have to be embodied within the European Monetary Union´s framework if the Union wants to avoid further serious market failures in the future. The currently decentralized banking system with national banks being indirectly und un-transparently supervised by supranational bodies on the EU level has proven itself to be rather inefficient. Therefore it is crucial to create more solid links between the two levels and increase the level of coordination so that impacts of possible market disruptions would be spread evenly over the whole Monetary Area instead of individual countries facing recessions, as was the case during the latest sovereign debt crisis. (De Grauwe, 2016, p. 133)

To have a look at a particular example of how a banking union resolves the insolvency issues better than the system currently employed in the European Union, let´s have a look at the case of Nevada and Ireland.

A unified banking union is a key component of the monetary area of the United States of America. During the Nevada banking crisis in 2008 banks were facing serious insolvency problems and were on the edge of bankruptcy thanks to its full involvement in the real estate market boom (and bust). The solution came in the form of financial injections from the Federal Reserve (The USA´s Central Bank). This way, the government of Nevada and the overall economy of the state was saved from default and during this „emergency financial assistance“ a financial value of more than 10 % of the Nevada´s GDP was moved from the sources of the Federal Reserve to the Nevada´s economy. On the other hand, in case of Ireland who was facing a similar crisis concerning its severity and origin no such back up was available and the Irish government was left to handle the issue alone, which obviously, was not really possible. We still remember the consequences the Irish economy experienced, with the government being forced to default and to accept severe austerity measures which led further down the spiral and contributed to a serious unemployment situation. (Gros D., 2012)

We could watch the same problems in most of the countries booming in the first years of the new century – Spain, Greece, Portugal.

Obviously, a complete banking union would require a further cooperation from the part of the member states and also handing over some of the responsibilities to supervisory and regulatory organs. This correspondingly requires especially the willingness to cooperate and common goal in terms of following the same economic and political directions. This is going to the topic of my next subchapter.

iii. Political unification

Another important aspect of a complete monetary area should definitely be a political union. Only with a unified political system measures like Eurobonds or a common fiscal and budgetary policy can be accepted which sheds yet another requirement on the current European environment.

The idea of a complete political union has already been heard from many directions throughout the European Union but every single time, the idea was refused because the member states were satisfied with existing conditions. Nevertheless the sovereign debt crisis led to enormous power changes with transferring of a significant responsibility to the organs of the European Union (e.g. European Central Bank serving as a Lender of last resort which I will be talking about more thoroughly in the next subchapter) and the idea of a supranational political ensemble has thus become a relevant possibility. A political unification would intensify the mutual links and relationships between the individual member states and it would include not only unifying of individual countries´ political offices but also much stronger cooperation in areas mentioned above, especially overall economic structure being run by this supranational organ (let it be the European Central Bank directly or any other organ created exactly for this very purpose). (Atanasiu, 2013, p. 40-48)

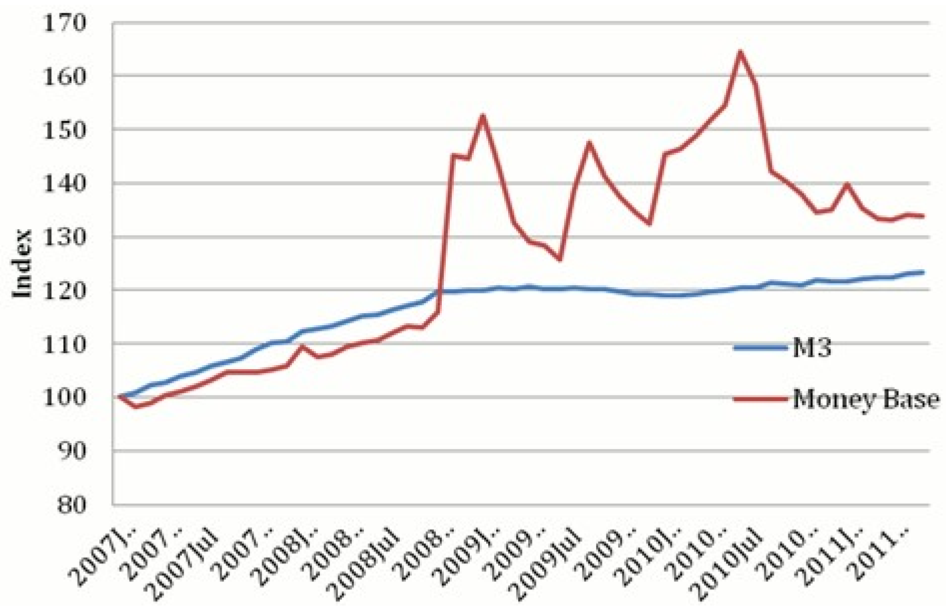
Apart from a clear economic point of view a political union would undoubtedly solve any shocks originating from the very political differences between the member countries. These (given the fact that fiscal and budgetary decisions are taken on national level under current circumstances) include for example unilateral decisions regarding taxation which can cause assymetric shocks as was the case of France when lowering the minimum working hours to 35 hours a week. Consequently a complete political union would definitely contribute to reaching the optimum currency area as depicted in the appropriate subchapter and the overall sustainability of the monetary area would be certainly improved. (De Grauwe, 2016, p. 136, 140)

iv. ECB – Lender of last resort

It has been proven that during periods of severe financial crises a certain organ needs to fulfill the function of a lender of last resort. (As was the case of a sovereign debt crisis after 2008 in the European Union where the ECB stood for this function or the contemporary situation in the United States of America with the Federal Reserve respectively).

To evaluate the performance of the European Central Bank when fighting the crisis one needs to admit that the ECB successfully managed to kept the EURO area unified and succeeded in containing the debt crisis thanks to its SMP program. The lesson the ECB should take from its last performance is not to repeat the failure of starting financing public households too late. The question still remains, under the given political setting, if it is actually possible to reach consensus on non-limit financing of public households, in case of another sovereign debt crisis. Generally speaking the function of the European Central Bank as a lender of last resort is „meant“ well already in the current form of the European Monetary Area but it struggles the shortcomings of an insufficient political unification a problem I described in the previous subchapter. Overall, the ECB should not be the only organ responsible for keeping together the whole eurozone. There is a need for stronger integration and building up a sophisticated structure of political and economic unity which could, through initiating its comprehensive reforms completely prevent another such debt crisis from happening. The ECB should on the other hand definitely retain its position of a supporter of national budgets in times of crisis. Combination of these measures would undoubtedly lead to a completely different and a much more favorable financial situation than the one that a lot of Eurozone members are experiencing at the moment. (Herr, 2014, p. 77-78)

Figure 9:



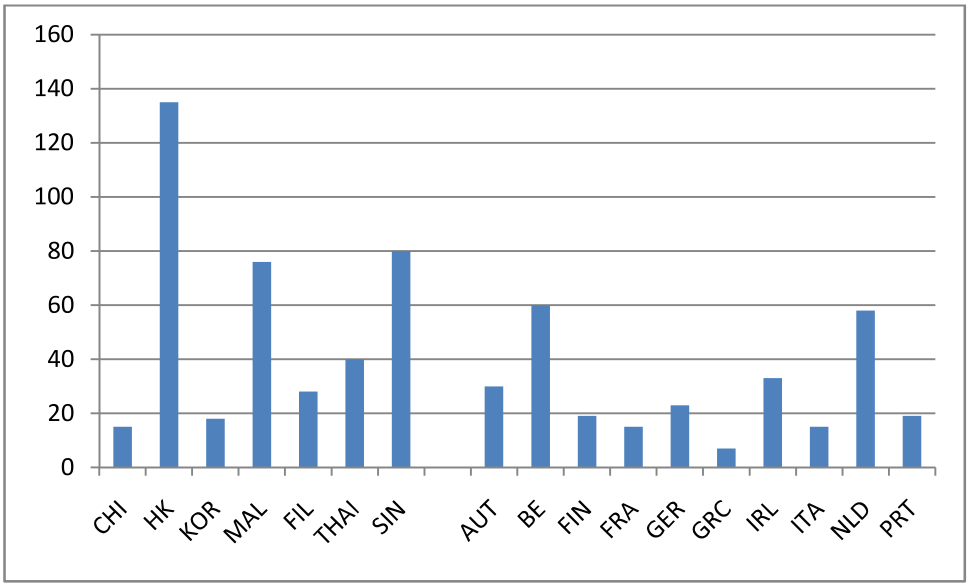
Difference in M3 and Money Base showing the impact of the ECB´s intervening after the outburst of the sovereign debt crisis, (De Grauwe, the European Union as a lender of last resort. [online] August 2011. [cit. 25.04.2017].Retrieved from: http://voxeu.org/article/european-central-bank-lender-last-resort)

4. The Eurozone compared to other monetary unions

I would like to dedicate this part to an analysis of other monetary unions that are currently in existence and compare them with qualities of the European Monetary Area. I have decided to exclude the United States which could otherwise be considered a monetary area because it has a different nature especially in terms of the political background (the individual states are not sovereign countries in the classic form). Instead I decided to include monetary unions or proposals of such unions in Latin America, Africa and Asia.

Talking about Latin America region, after an instable post-war period and failures while experimenting with various kinds of exchange rate regimes, an idea of creating a monetary union among certain Latin American countries has become quite popular. Let´s now have a look at the conditions which need to be fulfilled in order to create a sustainable, „optimum currency area.“ The degree of openness which seems to be very favorable in case of the economies of the member countries in the European Union is in case of Latin America, on the other hand, strikingly low. The reason for this might be high levels of export to other parts of the world which then leaves few options for the intra-trade within the Latin American geographical area. Another important aspect related to the optimum currency area theory is the level of (a)symmetry in these countries. Given the data presented by Morandé and Schmidt-Hebbel (2000), there is very little synchronization in the output levels of Latin American countries and assymetric shocks tend to occur on a frequent basis. Given these and other details concerning the Latin American economy, a monetary area in this geographical region might not be the most desirable option when it comes down to setting a price stability and prosperous economy in the whole region. (De Grauwe, 2016, p. 89, 90)

Figure 10:

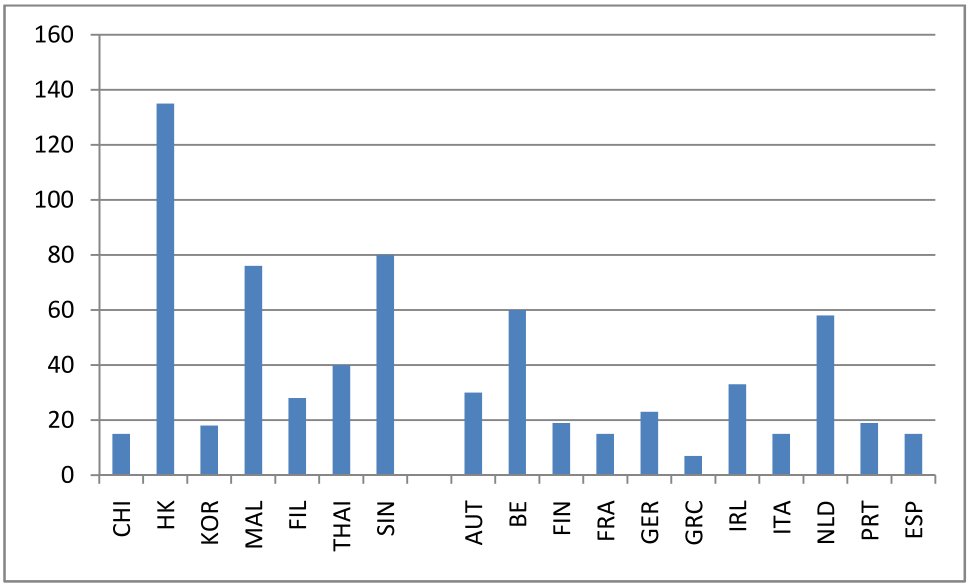


Comparison of intra-regional exports in goods and services; a percentage of GDP from 2010, (European Commission (2010), A Structured Framework to Prevent and Correct Macroeconomic Imbalances: Operationalizing the Alert Mechanism, Brussels, November)

Similar ideas due to severe turbulences in exchange rates between various Asian countries in the 90s have led many Asian countries to seriously think about creating a common monetary area as well. Let´s now have a look at the situation there.

The difference between Asia and Latin America concerning the level of openness is striking. While the Latin American region seems to show very little evidence of integration the Asian region shows, on the other hand, very favorable conditions compared to those in South America. The level of intra-trade within the East Asian region is very high which is a good sign in terms of conditions for the optimum currency area. Having a look at the symmetry of trade in these countries, the evidence shows also that the situation is comparable to the one in Europe. Furthermore the mobility of labor seems to be even more favorable than in case of Europe. The main reason why the monetary area in Asia has not been created yet consists of political reasons. The obstacles for creation of such economic are origin usually in the historical development of these countries and in political regimes, the view of which seem to be strikingly different which is not the case in Europe where the politics is headed towards more or less the same direction. (De Grauwe, 2016, p. 92-95)

Figure 11:

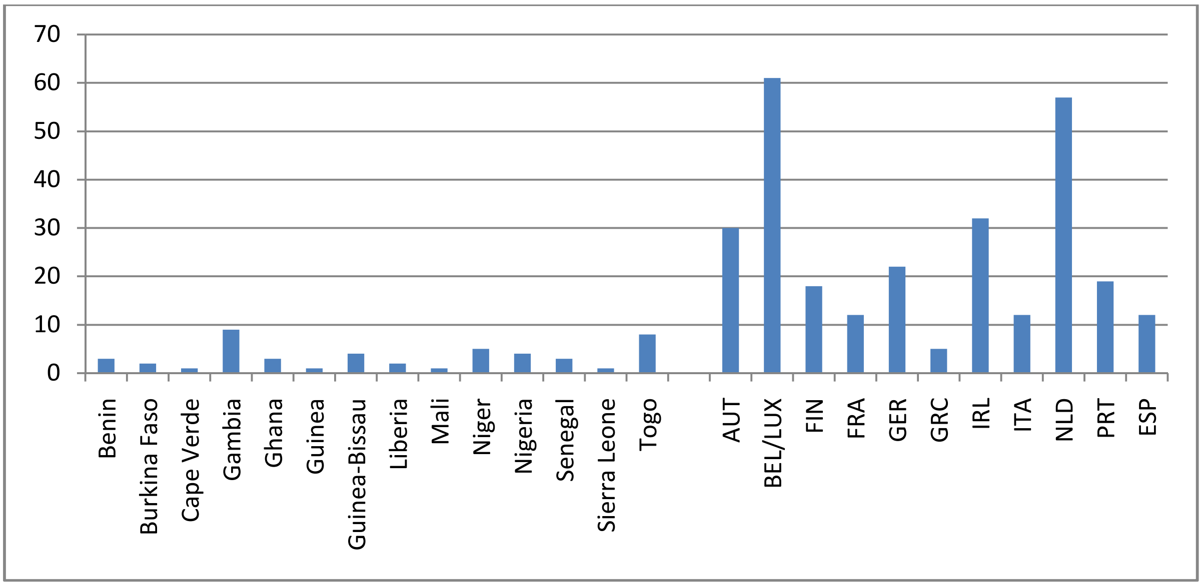


Intra-regional exports of goods and services, a percentage of GDP from 2010, (European Commission (2010), A Structured Framework to Prevent and Correct Macroeconomic Imbalances: Operationalizing the Alert Mechanism, Brussels, November)

The last example I would like to have a look at is the case of Africa where three monetary union have existed during the last century and where numerous initiatives for such monetary unions are currently active.

However based on the available data, whether the African region is an area, which could be described as an optimum currency area, is rather questionable. The degree of openness seems to be drastically lower compared to both the European Union and East Asian countries rather approaching levels of Latin America and the information provided on the levels of assymetry seem to be rather unclear but are certainly not lower than in the European Union. The only condition which might be speaking in favor of such monetary area is the level of labor mobility which seems to be very high among the African countries but generally seen, African regions do not represent an area suited for creating a monetary union, as for now.

Figure 12:



Intra-regional exports of goods and services, percentage of GDP from 2010, (European Commission (2010), A Structured Framework to Prevent and Correct Macroeconomic Imbalances: Operationalizing the Alert Mechanism, Brussels, November)

5. Overcoming obstacles that prevent the EMU from reaching completeness

We can conclude based on the overall content of this document as well as from the information described in the last chapter in particular that the European Union has met most of the requirements perceived to be important to create an optimum currency area and thus serve as a strong and sovereign economic ensemble in the area. We have also analyzed shortcomings that the European Union along with the European Monetary area is currently facing. That is especially the lack of further integration on political and fiscal levels.

In order for the member countries to reach this unity however, especially the actual willingness to cooperate seems to be the most important factor to me, the factor, that in my opinion, a lot of governments sadly lack. What has come up as a serious issue in connection to the European Union as a whole over the last couple of years is also the notorious refugee crisis which brought new obstacles and new challenges onto the organs of the European Union and at least what public concerns, has managed to put the economic solutions a little behind. It is possible to watch even on this issue, however that the politicians representing the member states in the European Union´s leadership organs have absolutely different opinions and do not seem to really manage to unify them. On the other hand current refugee crisis contributed significantly to the polarization of society with a lot of people supporting ultra-right or ultra-left wings who might damage the European Union´s unified policy and even prevented the further integration or, in the worst case scenario, tear the European Union and Euro as currency completely apart.

Therefore coming back to the roots and the original concept which the European Union and its predecessors have been created with: consensus, cooperation and coordinated action towards achieving common goals, let it be in the field of politics, economics and refugee crisis, is undoubtedly important.

Conclusion

In my thesis I have tried to analyze the current setting of the European Monetary Area with respect to its deficiency in certain regards and to come up with ways of correcting on these deficiencies, thus creating and optimum European Union where the possibilities of crises would be decreased to the minimum and, in case they appeared, the monetary instruments would be able to fight them.

I decided to research various documents handling the European Monetary area problem, with finding the De Grauwe´s literature to be the most suitable and extensive one. I also researched respective articles the list of which I included in the end of this work and used it where I found it suitable in order to provide more details, examples or an additional graphic information.

I decided to go for a gradual approach throughout the problem to the solution starting with pointing out the weaknesses of the current Monetary Area and how these weaknesses are being overcome with the use of respective correctional monetary instruments. Later I moved on to describing the theory of optimum monetary area and explaining the ways of completing the current EMU and thus ultimately solving the problem the European society is facing now. I also found beneficial to include a short description of other existing or aspiring monetary areas throughout the world and compare the conditions under which the relevant monetary areas have been or are supposed to be created with regard to the conditions surrounding the European Monetary area so that the reader can create an overview of to what extent the conditions for the European countries were advantageous in the time of the EMU´s creation.

I am certainly aware there exist numerous weaknesses in my thesis. The topic of this scope would require hundreds, maybe thousands of pages in order be described thoroughly from all the points of view. I decided mainly to stick to the economic point of view with regard to political and to a very little extent, social setting important for the completion of the European Union. I am sure especially the part dedicated to the tools and elements of the fiscal union embodied within the European Union framework could use further information and it would be surely possible to research it more thoroughly. Similarly the section describing the conditions in other geographical regions where monetary areas existed or could exist in the future could be explored in a more detailed way and these could be evaluated from a broader data collection.

The main purpose of my thesis was to provide reader with a clear and concise information regarding all the above mentioned and encourage him to desire to understand and to broaden his horizon concerning the economic issues the current European society is facing. I aspired to use a concise language and provide information directly relevant to discussed problems and consequently provide the solution which, in my opinion, is the best way of leading the European economy to prosperity.

LITERATURE

De Grauwe, Paul. Economics of Monetary Union, 11th edition, Oxford University Press, New York, 2016, p. 278 ISBN 978-0-19-873987-6

Jovanovic N., Miroslav. International Handbook on the Economics of Integration, Volume II, Competition, Spatial Location of Economic Activity and Financial Issues, Cheltenham, 2011.

Pagoulatos, G. (2014). State-driven in boom and in bust: Structural limitations of financial power in greece. *Government and Opposition, 49*(3), 452-482. doi:http://dx.doi.org/10.1017/gov.2014.6

Cecchetti, S. G. (1999). Legal structure, financial structure, and the monetary policy transmission mechanism. *Economic Policy Review - Federal Reserve Bank of New York, 5*(2), 9-28

SANTILLAN, J. (1999). The implementation of the eurosystem's monetary policy and its effects on financial markets. *Financial Market Trends,* (73), 175-196

BECKER, P. (2014). Reinforced economic policy coordination as crisis prevention in the eurozone. *The Polish Quarterly of International Affairs, 23*(3), 19-II.

BADURINA, A. A., M.Sc, & SVALJEK, S., PhD. (2012). Public debt management before, during and after the crisis. *Financial Theory and Practice, 36*(1), 73-100.

BALLI, F. (2009). Spillover effects on government bond yields in euro zone. does full financial integration exist in european government bond markets? *Journal of Economics and Finance, 33*(4), 331-363.

TREU, T. (1992). Labor flexibility in europe. *International Labor Review, 131*(4), 497..

GALÍ, Jordi a Tommaso MONACELLI. Understanding the Gains from Wage Flexibility: The Exchange Rate Connectionsup†/sup. *American Economic Review* [online]. 2016, **106**(12), 3829-3868 [cit. 2017-04-16]. DOI: 10.1257/aer.20131658. ISSN 00028282

ENOCH, C. A., HILBERS, P. L., & KOVANEN, A. (1998). Monetary operations in the european economic and monetary union. *Finance & Development, 35*(2), 38-41. Retrieved from

ENOCH, C. A., HILBERS, P. L., & KOVANEN, A. (1998). Monetary operations in the european economic and monetary union. *Finance & Development, 35*(2), 38-41.

GEZA, P., & GIURCA VASILLESCU, L. (2011). *The optimum currency area. is the euro zone an optimum currency area?*. St. Louis: Federal Reserve Bank of St Louis.

FUEST, C., & PEICHL, A. (2012). EUROPEAN FISCAL UNION: WHAT IS IT? DOES IT WORK? AND ARE THERE REALLY 'NO ALTERNATIVES'? *CESifo Forum, 13*(1), 3-9.

GILBERT, N., HESSEL, J., & VERKAART, S. (2013). *Towards a stable monetary union: What role for eurobonds?*. St. Louis: Federal Reserve Bank of St Louis.

GROS, D. (2010) Banking Union – Ireland versus Nevada: An Illustration of the Importance of an Integrated Banking System, CEPS Commentary, Brussels, available at: http://www.ceps.eu/book/banking-union-ireland-vs-nevada-illustration-importance-integated-banking-system.

ATANASIU, M., PhD. (2013). PERSPECTIVES OF THE EUROPEAN UNION - BETWEEN POLITICAL INTEGRATION AND DISINTEGRATION. *Strategic Impact,* (46), 40-48.

HERR, H. (2014). The european central bank and the US federal reserve as lender of last resort. *Panoeconomicus, 61*(1), 59-78.

European Commission (2010), A Structured Framework to Prevent and Correct Macroeconomic Imbalances: Operationalizing the Alert Mechanism, Brussels, November.

De Grauwe, the European Union as a lender of last resort. [online] August 2011. [cit. 25.04.2017]. Retrieved from: http://voxeu.org/article/european-central-bank-lender-last-resort

(the Economist, Labor reforms in Europe, Doing better slowly, April 2015 [online] April 2015, [cit. 25.4. 2017], retrieved from http://www.economist.com/news/europe/21649494-other-european-countries-have-moved-faster-france-labor-reform-doing-better-slowly)

Checherita, Attinasi, Nickel, What explains the surge in euro-area sovereign spreads during the financial crisis of 2007-09?, [online] January 2010, [cit. 25.04.2017], retrieved from http://voxeu.org/article/how-financial-crisis-raised-eurozone-bond-spreads)

European Central Bank, Eurosystem, Open market operations, [online], April 2017, [cit. 25.04.2017], retriever from: https://www.ecb.europa.eu/mopo/implement/omo/html/index.en.html)

European Central Bank, Eurosystem, Standing facilities, [online], April 2017, [25.04.2017], retrieved from: https://www.ecb.europa.eu/mopo/implement/sf/html/index.en.html

(Krugman, P. 1991, Geography and Trade, Cambridge, MA. MIT Press.)

(European Central Bank Eurosystem, Minimum Reserves, [online], April 2017, [cit. 25.4.2017], retrieved from: https://www.ecb.europa.eu/mopo/implement/mr/html/index.en.html)