

Economic Theory

Victor KOZIUK

**DEBT CRISIS
AND FISCAL FRAGMENTATION
OF EURO-ZONE**

Abstract

Based on panoramic view of the EMU fiscal fragmentation, it is shown that the divergence of the euro area could not be caused by inadequate principles of the Monetary Union. Prior to common currency transition the problem of fiscal fragmentation was disguised in a more stable global environment and confidence for the future policy of the ECB. The debt crisis in the EMU brought the problem of fragmentation out of the latent state, showing a clear division between the countries that have kept on competitiveness and whose economic growth has positive expectations, and the rest ones, which are characterized by the fact that their financial imbalances have been combined with the loss of competitiveness. Speculation against structural inflexibility tightened fiscal fragmentation. Fiscal rather than monetary reasons for the EMU divergence lie in a combination of incentives to reduce distortion of national debt reduction in the environment of global liquidity expansion and the institutional weakness of fiscal rules model of Stability and Growth Pact. Fiscal fragmentation has the signs of saving for a long time, threatening to enhance sensitivity of the EMU macro-financial stability to the economy policies of individual countries. Fiscal fragmentation of the euro area is incompatible with the prospects of common currency as a reserve one.

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Key words:

Euro-zone, national debt, debt crisis, fiscal fragmentation, fiscal rules.

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Introduction

The global financial crisis transition to sovereign debt crisis in the developed countries dramatically manifested in the European Monetary Union. Meticulous attention to this problem demonstrated both the attempts to verify internal vulnerability of monetary integration areas to fiscal shocks, and also to point out the unsustainability of the single European currency in light of the global monetary competition. Despite the fact that the final settlement of the debt crisis in a number of European countries have not yet been completed, structural reforms in the EU–EMU demonstrate a clear focus on the simultaneous combination of ensuring fiscal sustainability and flexibility of the member countries economies. Announced in 2011 package of reforms is designed to demonstrate the resolute intention to create a macro-fiscal, structural and institutional prerequisites to a single mechanism of monetary policy be based on the best foundation for debt sustainability.

However, the debt crisis in the EMU can not be considered in a traditional spectrum of the complications analysis of sovereign solvency. Moreover, the thing is not that the events of 2009–2012 demonstrated the presence of fundamental risks to macroeconomic stability, theoretically known from the practice of analysis of the fiscal determinants of the majority of famous historical currency unions collapse. Peculiarities of theoretical analysis of vulnerability to EMU asymmetries in monetary and fiscal policy are provided by a range of circumstances. Formation of the euro area was based on political-institutional treatment of benefits of monetary integration for leveling currency risks to which the system of tight trade relations showed particular vulnerability, increased competitiveness, increased stability of macroeconomic policies, lower long-term interest rates as a result of trust in a single central bank and so on. Compliance with the criteria of optimum currency area was not of reasoning but of denying monetary unification

nature. Thus, the issue of fiscal risk heterogeneity was always actively debated, but in the process of actual European integration it was pushed into the background until the detection of reluctance signs of some countries to follow fiscal rules. On the other hand, fiscal policy was not analyzed in the light when the integration area may be vulnerable to asymmetric processes accumulation of financial imbalances and loss of competitiveness by those countries that are at earlier stages of real convergence. The debt crisis in the EMU has generated quite a significant fiscal problem of fiscal fragmentation that did not approve itself in the prior stages of the integration area in Europe, even though it always existed in a latent, and in a manifested state. The biggest problem of this fragmentation is that it can become the starting point of a wider divergence of the euro area. The imposition of non-core role of a lender of last resort to the ECB will not guarantee the problem of divergence to be overcome even if it weakens the strain in fiscal fragmentation in the short term. Given the importance of fiscal stability factor for Monetary Union, we think the research in this area is relevant.

The discussions about the problems of the debt crisis in the EMU outlined the expected perimeter positions, whose origin can be traced from the time of the debate on the creation of the euro area. In this sense, there defines a kind of Anglo-Saxon area for analysis of the debt crisis, which is based on a skeptical assessment of the prospects for the euro area in a broader theoretical context. Inconsistency with the optimum currency area criteria, lack of adjustment to shocks in the form of a flexible exchange rate and the lending of last resort are regarded as fundamental drivers for the EMU divergence that had been theoretically predicted prior to the creation of the Monetary Union in Europe (Krugman, 2013; Obstfeld, 1998). Nevertheless, a number of American authors noted that quite a rapid success of the euro as an international currency can not be the result of the error of such a great number of global players, and thus the EMU functioning is based on a healthy pragmatic basis. Moreover, the lack of exchange rate flexibility is a problem of the global economy as a whole, not just the euro-zone; therefore, the fiscal problems should be analyzed in a concrete historical context (Posen, 2005; Pisani-Ferry and Posen, 2009; The Euro at Ten).

The crisis analysis in the EMU is also divided rather structurally into the problem of the relationship between imbalances and divergence, and the problem of the relationship between the loss of competitiveness, spreads and fiscal divergence. As to the former, a number of works can be distinguished which are unanimous on the fact that the basis of the divergence nature is an overheated financial sector in the South, and the lack of adaptation to new similar conditions through the equilibrium conditions for real effective exchange rate. Credit boom and asset price inflation turned out to be the important determinants of the crisis, fiscal adjustment to which became secondary from the view of the EMU crisis (Mongelli, 2010; Smaghi Bini, 2010; Hume, 2009). The loss of competitiveness is seen in literature as a very serious problem in case of Monetary Union members. Debt problems in these countries are a natural consequence of the failure to

maintain the economic growth rate that would guarantee a sovereign solvency. In case of significant debt accumulation the absence of automatic correction mechanisms for real effective exchange rate encourages speculation and worsens the EMU fiscal homogeneity (Lane, 2010; Barnes, 2010; Barbosa, 2011; Davlas et al., 2011; Alberola, 2011; Koziuk, 2011).

Presented in literature focus on purely fiscal aspects of Eurointegration indicates that the debt crisis is the result of distortions in the EMU macroeconomic mechanism as such. First, still before the introduction of the euro the EU countries were characterized by a lack of uniformity. The level of debt burden defined the future trajectory of behavior for the primary budget balance. And due to that, the stabilizing possibilities of the latter, as important in terms of the loss of the exchange rate as a tool of adjustment to the new similar conditions, turned out to be asymmetric in terms of the countries. Second, in terms of the countries there was a budding tendency towards an asymmetric response to the phase of the business cycle. That is, even at available synchronization of business cycles in terms of the countries, the fiscal response to their phases was far from that which would fit for the paradigm of fiscal convergence. Third, the replacement of nominal Maastricht convergence criteria for structural indicators of fiscal rules of the Stability and Growth Pact actually significantly deviated the EMU from the trajectory of debt stability. Prior to 2012 reforms these rules allowed both the excessive discredit, and frustrated responsibility for their violation. Fourth, in an environment of low interest rates fiscal constraints on the growth of national debt by over 60% of GDP began to be understood as to avoid the need to reduce national debt below 60% of GDP. As a result, the debt crisis in the EMU was due to the fact that the need to increase budget deficits in response to the crisis coincided in time with gradual but continuous exhaustion of fiscal space (these issues are summarized in a number of the author's researches (Koziuk, 2013; Koziuk, 2014). Reflections concerning options for the response to the sovereign debt crisis signified a new line of debates on the trajectories of the EMU transformation, and outlined the prospects for the evolution of Monetary Union (Barbosa, 2011; 2013). However, the scientific controversy still lacks the panoramic understanding of the relationship between fiscal fragmentation before and after the crisis.

The lack of attention paid to the problem of a peculiar institutional genetics on public attitude to the debt burden makes the destructive impact on a fiscal homogeneity of the Monetary Union, and thus, on its stability. If the fiscal fragmentation had been compensated before the crisis by the confidence to the future process of convergence, while remaining neutral on competitiveness, real convergence and financial imbalances, then after the crisis it marked a clear connection with the above-mentioned problem areas that fell beyond the analysis of the theory of optimum currency zones (Koziuk, 2012), and this given paper is aimed at substantiation of the panoramic integrity of the pre-crisis fiscal divergence processes.

The EMU peculiarities from the view of Monetary Union theory

Special emphasis on why the sovereign crisis in the euro area is so destabilizing for the global economy should be linked to a number of reasons.

First, the euro is and remains a real alternative to the US dollar and, essentially retains its reserve currency status, and the debt liabilities of the EMU member countries are, respectively, the reserve assets. This means that the proportion of assets in global portfolios is higher than the proportion of the countries – issuers' GDP in a global output. Naturally, significant external national debt instruments possession of the EMU member countries changes the modality of debt market functioning.

Second, the structure of interest rates in the euro instruments is formed on the principle of currency risks exclusion. However, leveling of currency risks had exacerbated the gap between fundamental analysis of sovereign solvency of individual borrowers and the actual dynamics of spreads long before the crisis. Extensive borrowing in an environment of low interest rates can be considered not only the problem of market failures but also that of governments who would be able to pursue a more risky fiscal policy.

Third, the rapid fragmentation of the EMU debt markets on principles of «safe harbor» and «speculative segment» is a continuation of the analysis of the monetary integration area in terms of financial imbalances and compliance with the criteria of optimum currency zones.

Fourth, the model of the EU-EMU macroeconomic policy was based on the principle of «no collective foreign infusions in case of crisis» (- *no crisis bail-out*). This means that destructive processes in the euro-area unfolded simultaneously with the discussions about the degree of the Maastricht model macro policies compliance with the prevailing conditions, increasing uncertainty about the future status of the euro, monetary ECB rate, membership of certain countries, losses from the process of disintegration or pool size to create a package assistance to individual countries.

Fifth, the willingness to save the single currency in terms of asymmetric loss of global competitiveness of individual EMU member countries increased the conflict degree between the policy of internal devaluation and the fiscal consolidation required to stabilize the national debt. The combination of measures in budgetary savings with reduced wages and social benefits are functionally similar, but equally ambiguous about the impact on economic recovery. Structural rigidities, political and economic losses of the programs of public finances consolidation, and external pressure on the euro exchange rate have demonstrated the emergence of new motives for speculative activity.

Sixth, the EMU debt crisis unfolded under the influence of excessive market focusing on the problem of participating countries coordination just due to the fact that the ECB policy differed qualitatively (before launching of the programs to support the liquidity of debt instruments in Italy and Spain) from the programs of government obligations acquisition that were actively implemented by the Federal Reserve, Bank of England, Bank of Japan, Riksbank, etc.. The paradoxical conflict between a long-term monetary stability and short-term liquidity of debt markets was focused on reserve currencies / assets, and that attaches the issue of distorted global monetary relations to the problem of debt sustainability of the EMU countries.

Hence, the debt crisis in some euro area countries can refer only to the expression of no confidence in the solvency or insolvency manifestation to serve the sovereign debts. And the reforms of macroeconomic policies in the EMU, even if they are addressed to the national level of fiscal policy implementation can not but attest to the process of integration association adaptation to the new realities of the global environment.

Another block of problems that show extraordinary situation around the debt crisis is that it takes place in the integrated community, the formation of which from the beginning: contained the signs of uncertainty in terms of the theory of optimal currency areas, especially in the fiscal aspect (lack of inter-country transfers designed to facilitate the adjustment of some economies to specific asymmetric shocks in the absence of exchange rates, on the one hand, and uncertainty about how differences in GDP per capita should determine differences in quantity and quality of offered public goods, and the extent of income redistribution, on the other hand); was based on a sufficiently developed institutional mechanism of adherence to fiscal convergence criteria, which grew into the system of fiscal policy rules (fiscal convergence Maastricht criteria were part of the EMU fiscal rules under the Stability and Growth Pact (SGP), but the structure of the rules showed different macroeconomic and institutional approach compared with that which was laid down in the Treaty of 1992 on the introduction of the euro in 1999); disregarded macro-financial risks of asymmetric staying of the countries at different stages of real convergence (the benefits of the operation of common currency in the countries with lower income per capita were calculated from eliminating the problem of inflation and exchange rate instability, which had a positive impact on interest rates and encourage investment, while the risks of asymmetric financial imbalances were not debated, including the fact that they were not known in the economic theory of integration processes in such a form, as they are now). Neglecting the presently known macro-financial integration risks for the countries which are in different stages of real convergence is indeed one of the reasons for the formation of the model of the EU–ECB macroeconomic policy, which took place in the 1990s and which has undergone significant changes as a result of 2010–2012 reforms. Read more about the theoretical aspects of the issue (Koziuk, 2012; Pisani-Ferry, 2012; Davras, 2012).

Pre-crisis EMU fragmentation

The crisis of 2009–2011 was preceded by a number of trends that eventually defined the debt profile of macro-financial instability: lack of fiscal homogeneity; transformation of fiscal convergence criteria into the rules of fiscal policy in the integrated community in a way that did not produce an impact on improving the debt sustainability; deepening of financial imbalances in the context of the member states, which can be divided on a principle of the «North-South – Centre-Periphery»; absence of last resort lending and lack of mechanisms for the problem solution of liquidity crisis type.

So, as it is known, the fiscal aspect of convergence criteria was predicted by the Maastricht Treaty. From 1992 membership in the euro area (as well as in the European mechanism of exchange rates II) provides for that the overall budget deficit should not exceed 3% of GDP, and national debt – 60% of GDP. This specification reflected the best the idea that discretionary fiscal policy should be substantially limited. Achieving the debt sustainability and strengthening the common principles for creation of fiscal policy mechanism would have to create a reliable basis for the functioning of the monetary union.

In the light of the gaps within the national debt and budget deficits values, we can unambiguously affirm that the Maastricht fiscal criteria looked unrealistic when taking into account the introduction of the euro in 1999.

Also the determination of the permissible limits of the budget deficit and national debt was like this that is based on the median values in the developed countries over a long period of time, but not according to the current fiscal situation in the EU. The limit making 3% of budget deficit to GDP, and 60% of national debt to GDP at the moment of the EMU establishment, and the transition to the euro reflects almost arithmetic averages, but not the median ones in the integrative zone (Koziuk, 2013).

The EMU formation and transition to the single European currency assumed that almost half of its members would not meet the fiscal convergence criteria. Also to pursue the policies according to the following criteria included that individual countries would initiate the aggressive programs of fiscal consolidation or significantly curtail their volume of assets of social economic sector to reduce the size of national debt if significant changes in the structure of public finances could not be achieved in the short term. The reliance on the fact that the operation of the single currency policy of fiscal convergence continues, was partly justified given the fact that most countries, at least politically, have shown their willingness to follow the harmonization of the debt burden in accordance with the agreed principles of effective macroeconomic policy in the Monetary Union. The average value of the Maastricht criteria did not cause the hard resistance even

among marginal debtors, such as Belgium and Italy, indicating the presence of certain Euro-optimism (Buitter et al., 1993).

Significant level of already accumulated national debt and slow fiscal convergence originated a very specific situation, which acted as a reflection of the introduction of fiscal rules in the EMU, the design of which, from a macroeconomic point of view, deviated from the logic of the Maastricht criteria. On the one hand, from the perspective of fiscal rules design the fiscal convergence criteria are inflexible, and more focused on the control over scarce displacement and homogeneity of fiscal positions. The intelligent environment on the eve of the euro introduction had clearly formulated two main vectors for Maastricht criteria transformation into the EMU fiscal rules. The Stability and Growth Pact (SGP), adopted in Amsterdam in 1997, and amended in 2005, made a compromise both on the side of macroeconomic theory, and on the side of the Eurointegration policy. The macro theoretical and institutional SGP analysis reflected the presence of potential problems in the area of fiscal discipline in the EMU that, as a result caused raising the debt vulnerability of many member countries of the Monetary Union during and after the global financial crisis.

First, in the absence of monetary channels, the adjustment to fiscal policy shock is seen as the most significant mechanism for cyclical fluctuations mitigation. The combination of flexible decentralized and centralized fiscal tight monetary policies was defined by the base model of the EMU mix policy, which has significant advantages. Theoretically it was assumed, that if the Maastricht restrictions were imposed on fiscal expansion, then certain dosed flexibility would not threaten the process of economic convergence, but rather would enhance the real and nominal convergence through smoothing business cycles in the context of the member countries (Koziuk, 2013). As far as the decentralized flexibility is associated with automatic stabilizers, rather than the large-scale discretionary displacements of the policy, then it would not be the threats to the Monetary Union stability. An earlier view of the problem of fiscal discipline showed more categorical approach to the role of balanced budgets in the provision of economic growth and macroeconomic stability in the process of the European integration. Certain changes in the perception of optimal fiscal policy were clearly rooted in the late 1990s, resulting in the fact that the automatic stabilizers and cyclical structural balance began to be considered a better alternative to a hard line on fiscal discipline. It is remarkable, that the emphasis on the inclusion of fiscal homogeneity in the subject domain of the analysis of the EMU criteria for optimum currency area was not done (Mongelli, 2002; Dorrucchi and Firpo, 2002). And as a result of that, an automatic stabilizing fiscal policy has been implicitly viewed as functional additions to the alignment of business cycles, which is more important for nominal and real convergence.

Secondly, going beyond the Maastricht stiffness was due to the variation of the value of the debt burden in the EU – EMU and current policy conditionality by the former character of debt expansion. Thus, empirical research clearly shows

that the current fiscal policy is rather strictly limited with previous state of public finances, and the burden of interest payments is an important factor for limiting a budgetary maneuver using primary deficit (analysis of this problem is presented in (Koziuk, 2013; Koziuk, 2014)). The presence in the GSP macro-model of medium-term fiscal objectives, particularly these which are expressed on a cyclical basis, clearly showed the deviations of convergence criteria towards more flexible and complex fiscal rules.

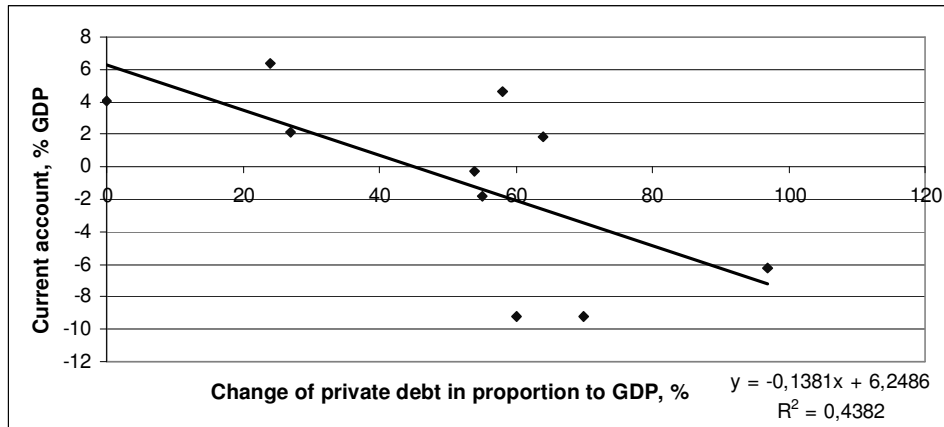
Thirdly, the GSP macro-design demonstrated that the shift from the convergence priority to the flexibility priority is a certain continuation of the line on the status quo in further convergence of the Monetary Union economies. As the empirical study shows, the role of common factors in the behavior of budgetary balance in the EU began to grow significantly since 1985, while the value of net borrowings rather varies in the process of adaptation to specific shocks. These results demonstrated that the strengthening of homogeneity in fiscal policy is derived from the synchronization of business cycles rather than the convergence in public finance (de Bandt and Mongelli, 2000). Specific national framework conditions of fiscal divergence are not less important determinants of differences in the trajectories of budget deficit and national debt than asymmetric macroeconomic shocks applied by the past practice to the current long-term fiscal policy conditionality. The uniform response to the recession by expanding budget deficit is more distinct than the symmetry in the respond of surplus to the economic growth (Koziuk, 2013). Without additional reservations regarding budget surplus in boom times and with a wide range of interpretation for going beyond the limits of medium-term fiscal targets, the EMU fiscal rules should be recognized unbalanced. Practically, this means that the Pact laid the formal foundations to such a macro –model of the fiscal policy, which allows for asymmetric automatic stabilization in the context of business cycle. The presence of controversial issues, and bureaucratic debates paved the way for the use of asymmetric constraint to fiscal consolidation, in terms of the countries. Consequently, the GSP was criticized almost immediately after its implementation and in terms of assessing the suitability of the so-called K-III criteria has space to improve (Koziuk, 2013).

Imbalances, Crisis and Fiscal Fragmentation

The accumulation of financial imbalances in the euro area has created a serious discussion about whether the generation of asymmetries in the behavior of asset value, credit cycles and consumption boom in terms of the countries with different incomes per capita is caused by the common monetary policy or by structural factors (Mongelli, 2013). Fig.1 demonstrates the presence of pre-crisis relationship between external and internal imbalances.

Figure 1

The relationship between internal and external imbalances in the EMU, 2000–2010 years



Source: (Koziuk, 2014).

From a theoretical point of view, the relationship between financial imbalances and sovereign solvency was not so much clear-outlined prior to the national debt crisis in a number of so-called peripheries of the euro area. To explain that relationship we should take into account several aspects.

A) Loss of competitiveness. Thus, if the cost per unit of labor factor in 2003 is taken for 100, then in 2007 it was as follows: Germany – 96, France – 107, Greece – 114, Spain – 115, Italy – 118, Ireland – 125 in 2008, respectively, 100, 113, 120, 122, 125 and 135, in 2009 – 103, 116, 125, 124, 124, 132, in 2010 – 102, 115, 124, 122, 123, 121, in 2011 – 103, 119, 123, 121, 127, 120 (Koziuk, 2014). That is, the process of unwinding the spiral of financial imbalances was accompanied by sharp changes in relative labor costs. Return of expenses for the equilibrium trajectory is contradictory as for the ability of the private sector to bear the burden of accumulated debt

B) The growth of national debt as a result of the financial crises. Recent studies of fiscal policy response to the financial crisis are ambiguous about the growth of national debt as a result of programs implementation to help the financial sector. Credit expansion affects the quality of bank assets, resulting in the fact, that the bank post-crisis recapitalization is completed with a sharp rise of national debt.

C) Absence of the mechanism for the course correction. The common monetary policy does not provide for the availability of the exchange rate in response to the worsening of external competitiveness. Correction of balance of payments due to labor costs rising and credit expansion can not occur through changes in the nominal exchange rate, but it requires changes in domestic absorption, which is the impetus for the loss of GDP in real terms and the ratio deterioration of debt to gross domestic product.

D) Underestimated relationship between fiscal sustainability and financial stability of the banking sector. High sensitivity of the banking sector stability to the behavior of spreads in debt instruments of a number of the EMU countries demonstrated both, a vulnerability to risks possession of such instruments, and the ability of markets to speculate on the ability of governments to support banks whose condition is deteriorating because the fiscal stability of the countries where they operate has already deteriorated. In fact, the expansion of the debt and banking crisis in the EMU in 2010–2012 demonstrated that the markets were quite clearly aware of the interdependence between the ability of governments to provide financial assistance to the banks and the willingness of the banks to maintain liquidity of debt instruments in the countries whose fiscal sustainability was doubtful just because of their inability to regain competitiveness by changing the exchange rate and the ambiguous impact of saving economic programs on national debt dynamics in the short term.

Lack of liquidity support mechanisms in the national debt markets, including strict institutional limits on the ECB's functions as a lender of last resort, produced a significant impact on the expansion of crisis processes in the euro area. From the very beginning, the design of macroeconomic EMU EU policy excluded the principle of centralized interference into the solution of fiscal problems in member countries. The Maastricht criteria together with a clearly stated mandate and a high level of institutional protection of the ECB independence were seen as the fundamental financial instability inhibitors that from the outset were aimed to neutralize the grounds causing them, i. e. – expansionary macroeconomic policies. Special emphasis on the fact that centralized services can not be provided to solve fiscal problems, was made for the reasons that it should be perceived as an incentive to fiscal discipline and responsibility. Prevention of moral hazard in the system of the common monetary policy was more priority, and thus easier way to create transparent principles of macroeconomic management. Probability of debt crises was ruled out, and at the same time possible mechanisms for the resolution of debt problems were also excluded

However, soon it turned out, that this model of macroeconomic policy does not meet the needs of crisis management liquidity generated by speculations respective structural rigidities of the economy. Also, the debt problems in some countries arose not as much as a result of a bad fiscal policy before the crisis, but as a result of the fact, that the increase in national debt was raised by the

banking sector rescue programs, overloaded with bad debts, which had emerged as a result of the credit boom of the previous period.

Other aspect of problem is intercommunication of spreads and crediting of the last instance. Before crisis quick compression of spreads pointed out that markets which are captured by evening – out of currency risks, obviously overestimate the absence of independent risks. As the crisis came and negative expectations concerning to the which channel of adjustment of the process of macro-economic adaptation to the new equilibrium conditions will go, were activated; spreads began widen overly as deprivation of liquidity in the financial system as a whole, loss of liquidity of debt securities of certain independent loan debtors and speculation concerning its future paying capacity began to strengthen each other. The absence of crediting of the last instance, at the point of view of certain economists, is the principle part of that fact why debt crisis in some countries of EMU was so sharp (Krugman, 2013). The absence of common Eurobonds concerning which EMU could be a creditor of the last instance, wiggled positions of Euro as reserve currency which influenced the deprivation of liquidity of debt markets of certain countries where poor effect of domestic substitution capitalized additional volatility inspired by fluctuation in the structure of global debt portfolio.

As a result the share of external possession of debt securities of member countries of euro-zone essentially increased (Rother et al., 2010). This can be explained by evening-out of currency risk and strengthening of taking such papers as replaceable. However, together with increase of share of non-resident possession of debt instruments the risk of market hyper reaction on the liquidity problems or, in other words, creation of speculative problems with liquidity became more simple case in condition of essential share of external possession. Liquidity support of instruments by channels of crediting of the last instance is possible only via monetary actions which violate the principle of individual responsibility for the problems in the field of fiscal policy. We can make pre-conclusion that common currency, removing currency risk, doesn't guaranty reduction of rates on the permanent basis, as far as the risk concerning with negative expectation concerning market liquidity and blocking of channels of its infusion can emerge.

However, in spite of essential crisis specific in euro-zone, accumulation of national debt before and after crisis pointed out on that fact that EU-EMU should examine as those which have no immunity from debt instability (table 1). Generally, fiscal policy in euro-zone countries during the long-term period demonstrates countercyclical direction with asymmetric action of automatic stabilizers. At the aggregated level we can clearly see that after deprivation of budget balance the profit was no achieved which could guarantee decrease of national debt. Success of coping with hyper deficits on 1980s – beginning of 1990s was not reinforced by essential decrease of national debt even if to take into consideration that some countries managed to decrease it almost under 20% of GDP (Belgium

and Italy) (Koziuk, 2013). Hyper confidence in that fact that flexibility of fiscal policy can be reviewed as important subcomponent of compensation of lost monetary mechanisms of macroeconomic stabilization is the analogical problem. However, such flexibility was supported at the level of national debt which in euro-zone was essentially bigger comparing to Maastricht criteria of 60% of GDP. In such a case, if in periods of essential reverses of budget balance to the equilibrium as was before crisis the level of national debt reacted with decrease, and after the crisis increase of its level turned out to be that essential reverse of budget balance and more than two time deficit decrease from 2009 till 2012 didn't stabilized the path of accumulation of sovereign debt. Such regularity reflects the speed of multiplication of government papers and its influence on increase of interest burden (Koziuk, 2013). From 1996 till 2008 interest pay-out in euro-zone countries decreased nevertheless that function of national debt demonstrated unessential trend increase. (Analogical tendencies took place in all developed countries testifying that liberalization of interest burden as a result of global interest rates destroyed motivation to decrease national debt lower than 60%). After 2008 with crisis beginning, increase of national debt changed the behavior of interest burden. It began to grow, testifying increase of independent risks and widening of spreads (Davlas, 2011; Koziuk, 2013; Completing the Euro; Davras, 2012).

Table 1

National debt in euro-zone, % GDP

	1998	2002	2004	2006	2008	2010	2012	2013
Germany	61,2	62,5	69,3	67,9	66,7	83,2	78,9	78,4
France	58,1	67,5	74,1	76	73	91,2	100,1	91,8
Italy	118,1	118,8	116,8	116,7	114,6	126,5	123,4	132,5
Spain	67,4	60,3	53,3	46,2	47,7	67,1	87,9	93,9
Netherlands	70,0	60,2	61,9	54,5	64,8	70,6	81	70,2
Belgium	118,1	108,3	98,3	91,6	92,9	100	103,1	99,4
Austria	64,7	72,8	70,9	66,4	68,7	78,1	83	74,9
Finland	53,6	49,5	51,5	45,6	40,4	57,6	59,1	53,9
Greece	107,7	119,2	113,3	113,4	115,4	142,8	153,2	175,1
Portugal	60,0	61,5	66,5	72,6	75,4	93,4	112,4	128,9
Ireland	59,5	35,8	33,1	29	49,5	98,4	121,6	116,1
Luxemburg	7,1	12,2	14	11,5	18,3	24,7	26	30

Source: Made on the basis of OECD and IMF data (www.oecd.org., www.imf.org).

At the same time, unessential increase of volume of interest pay-out at the aggregated level of euro-zone country-members hides that fact that even before crisis fiscal divergence created the bomb of slow action at the mechanism of providing of macroeconomic stability. Table 1 underlines that behavior of national debt in so called old member-countries of EMU is extremely inhomogeneous.

As we can clearly see from data from table 1, it is almost impossible to identify consistency in state debt behavior from a perspective of mentioned countries. We can see that before global financial crisis only Luxemburg, Ireland, Finland, Netherlands, and Spain carried out the Maastricht criteria of 60% of debt to GDP. Austria was coming to it faster; France and Portugal were moving away; Italy, Greece, and Belgium were gradually embodying programs of decrease of national debt, and Germany was not demonstrating distinct tendency rather confirming loyalty to stabilizing flexibility. Yet from 2008 situation is changing rapidly. Taking into consideration differences in processes of real convergence, vulnerability to accumulation of financial misbalances, path of national debt and structural flexibility, we can separate such groups:

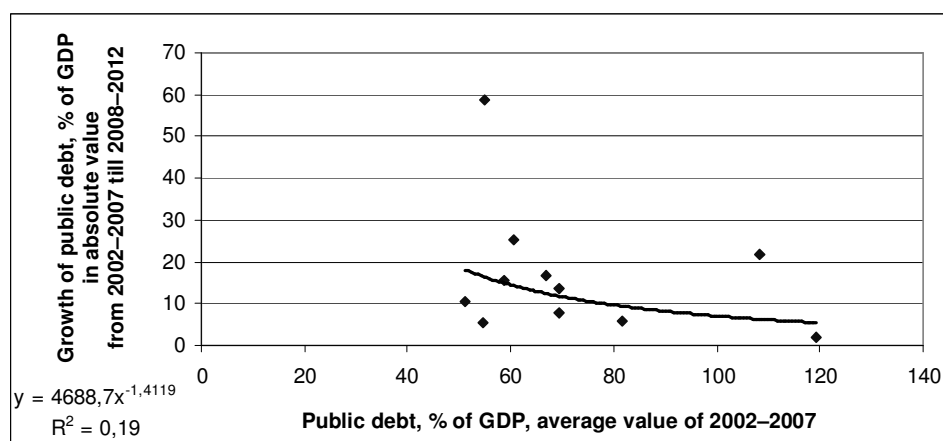
- group which suffered from financial glut, which preceded the crisis and where the rapid real convergence took place. This group includes Ireland, Spain, Portugal, and Greece. First two countries held sufficiently adequate policy of national debt decrease and supported essential budget profit, but their structural balance was in negative zone, masking the structural vulnerability over the assets market expansion. Other two were already under the burden of debts before crisis. In each of these countries namely essential problems in financial sector influenced the rapid increase of national debt, excluding Greece, where it was because of incapacity to hold budget balance in appropriate frames;
- group of traditional debtors which include Italy and Belgium. We could observe inessential increase of national debt as a result that it was already at the remarkable level in these countries. By all this, Italy suffered essentially more if to take into consideration more clear structural inflexibility and institutional weakness. Rapid accumulation of national debt by France makes it closer with this group, but it can't belong to it to the full extend;
- group of structural mercantilism or of traditional EU exporters, which includes Germany, Netherlands, Finland, Austria were the national debt essential increase didn't cause vital markets concern, but rather vice versa. Debt papers of these countries are considered rather to be more as «safe harbor». Specific of this group is that thing that only its members didn't experienced decrease of global competitiveness, without regard to characteristics of internal financial imbalance in Netherlands and Finland. Nevertheless flexible, innovative, and export ori-

ented economies of these countries suffered from crisis but are taking into consideration as those who can quickly adopt to new equilibrium conditions. Luxemburg can be partly referred to this group where the national debt doubled but was at the same unessential level before and after crisis.

Figure 2 clearly shows that the country's possibility to accumulate national debt for implementing fiscal policy stabilization mission essentially depends on previous levels of debt.

Figure 2

Pre-crisis debt burden and the post-crisis possibility for fiscal maneuver of euro-zone «old members», excluding Luxemburg



Source: calculations based on OECD database.

The more debt to GDP ratio deviates toward the higher than 60% level, the less country is able to support further debt expansion. If the country continues to accumulate it, the debt crisis risks become apparent. This finding coincides with the theoretical conclusions that optimal fiscal policy should provide space for maneuver so that new borrowings could be obtained with credibility. Without significant reduction in national debt in Ireland and Spain previously to 2008, financial problems in the banking sector with nearly twofold increase in national debt in the period of 2008–2012 would lead to macro-financial collapse. Each of these countries, especially Spain, suffered a deep crisis of liquidity at the level of debt

to GDP, which wasn't a case for other countries with similar ratio. An increase in the national debt position has significantly increased the likelihood of crisis. The case of Greece shows that distrust to fiscal policy can hardly be compensated by lending of last resort, since monetary factors stimulates a hike in nominal interest rates, to which P. Krugman in his analysis of the «Greek crisis model» had not paid attention (Krugman, 2013). One can express skepticism about the fact that countries like Greece can afford an access to lending of last resort in times of sovereign liquidity crisis without rapid increase in nominal interest rates. Inflation expectations due to such actions couldn't solve the problems of debt markets rather than add additional problems to macroeconomic policy. Krugman cites differences in spreads of Denmark and Finland in favor of the fact that sovereign monetary policy could improve the situation with the debt sustainability in times of crisis. However, it does not take into account other factors such as flexibility of the economy, the stage of real convergence and quality of institutions. The credibility of the central bank is also important. That is, the problem of spreads cannot be found in the common monetary policy, and rather in fact that monetary policy was turned out to be vulnerable to debt crises, low probability of which was the key dominant of its design. Intervention of ECB as a lender of last resort changed the situation, though showed that monetary policy in the euro area should be based on the mechanisms that could solve debt problems without actions taken by central banks outside unambiguous interpretation of its mandate.

Speculation, global dimension of EMU debt instability and fragmentation after the crisis

In other words, the EMU debt crisis has enough fiscal reasons, and most of them are rooted in the pre-crisis fiscal fragmentation and a lack of incentives to reduce the debt burden in terms of the expansion of global liquidity. The EMU fiscal rules system has not provided the imperative for national debt reducing below the criterion for assessing debt sustainability in order to have stabilization incentives that could be trusted during the shocks, and the need for fiscal consolidation was not accounted during the recession. However, this does not mean that the specificity of EMU as integration association in addition to other factors of global investor behavior did not affect the depth of the crisis.

Fragmentation of debt markets of member-countries emphasized the vulnerability of fiscal policy in the transformation model of sovereign borrowers risk assessment, for which speculations against structural rigidity may arise. For example, R. De Santis stated that spreads increased even for countries with good fundamentals for debt sustainability, but for countries that are vulnerable to the

problem of loss of global competitiveness leap of spreads created a failure to normalize refinance of debt. Unlike P. Krugman that links the dramatic increase in spreads even for countries with restrained fiscal policy to the lack of lending of last resort mechanism (Krugman, 2013), De Santis identifies three key determinants of return on sovereign debt instruments: aggregate risk (monetary policy global uncertainty, attitude to risk); specific country risk (probability of default, the nature of deficit financing, liquidity of debt markets); financial risk of contagion. He argues that the division of countries into «quiet harbor», «countries of the South» and «the other» largely relied on the credibility of fiscal policy, which is the result of a comprehensive assessment of economy adjustment to shock rather than only analyze the current level of national debt. At the same time, attitude to risk, uncertainty and financial contagion are equally important factors of debt markets divergence and further destabilization of EMU.

Speculative moment and mutual reinforcement of debt and banking crisis significantly influenced the run of macro-financial destabilization of the euro area. Despite the fact that there were enough fiscal reasons for destabilization, the problem of credibility of euro as a reserve currency or the currency in which reserve assets are denominated also appeared to be. Table 2 makes it possible to see that the increase in the share of the euro in global foreign exchange reserves continued until 2009 then began to decline. Although the share of US dollar also returned to the previous level, the share of «other currencies» almost doubled compared to the pre-crisis period.

Table 2

The currency structure of global foreign exchange reserves, %

	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
USD	71,5	65,9	66,9	64,1	64,1	62,0	61,8	62,2	61,3	61,2
JPY	5,0	3,9	3,6	2,9	3,1	2,9	3,7	3,5	4,1	3,9
GBP	2,7	2,8	3,6	4,7	4,0	4,2	3,9	3,8	4,0	4,0
EUR	19,2	25,2	24,1	26,3	26,4	27,7	26,0	25,0	24,2	24,4
Other	1,3	2,0	1,7	1,8	2,2	3,0	4,4	5,3	6,3	6,4

Source: IMF Annual Report. Appendix I. – IMF: Wash. (D.C.), 2014. – p. 3.

Table 2 figures are not currently pointing on deep structural changes in the global monetary relations. But they may not reflect the fact that there is growing competition in the market of reserve currencies. Fiscal factor of such competition becomes as more decisive, as more debt liquidity can be maintained at the level

of debt that is much higher than that associated with debt sustainability. It is no coincidence that a policy of the ECB in 2012 on a proposal of maintaining liquidity of euro through Outright Monetary Transactions in the debt markets of certain countries significantly weakened speculative pressure. Together with the reforms of fiscal policy in the EU-EMU and deepening of understanding on promotion by creating a fiscal and banking union, more flexible policy of the ECB has strengthened macro-financial stability. However, easing tension in the euro liquidity would not have such a profound impact if it was not accompanied by savings programs and institutional reforms of Stability and Growth Pact, indicating that the destabilization of EMU as a fiscal predetermined factor by itself, and the fact that asymmetric debt vulnerability of EU monetary zone integration members is incompatible with the positions of the euro as a global reserve currency.

Post-crisis fiscal fragmentation of the euro area creates a number of difficulties:

- asymmetric limited access for sovereign borrowers financing had occurred exactly in time of its highest cost for elimination of the conditions for resynchronization of cycles via budget expenditure. And the problem is more complicated in light of transforming fragmentation. It appeared as the criterion «Portugal – Ireland – Greece – Spain» (abbreviator PIGS – «pigs») and others. It was evolved into «Greece – Italy – Portugal – Spain» (abbreviator GIPSI – «gypsies») and others. That is, the first post-crisis phase fragmentation occurred in the countries with significant financial imbalances, which have developed into budget problems, while the latter reflected the inability of the South make the necessary structural reforms. A further fragmentation has covered the rest of the EMU countries, during which came to the forefront of the accumulated debt criterion and criterion for assessing the prospects for economic growth based on ensuring competitiveness;
- asymmetry of approved fiscal consolidation and asymmetric inconsistency of its implementation preserves the current fragmentation and increases dependence of stable functioning of the euro to the speculation that are sensitive to political interpretations of readiness of a country to bear the burden of adaptation to the new equilibrium conditions. This means that exchange rate of dollar-euro and its spreads will keep for a long time the vulnerability to signals of non-economic origin;
- restore of competitiveness as a long-term strategy will require increasing investments in innovation and human capital sectors, which means that countries with better access to financing could allow a more flexible fiscal policy, thereby creating favorable conditions for economic growth in the future. The fragmentation complicates the situation on synchronization of global competitiveness, so it grounds the preconditions for cyclical divergence in the future;

- the fragmentation disturbs the efficiency of common to all member countries monetary transmission mechanism and the ability of different groups of countries to provide correction deficit. Easier policy of the ECB on smoothing differences in spreads may need to go on a systematic basis, thus it breaks the defining principles of monetary policy in the euro area specified in the Statute of the ECB and the Maastricht Treaty. In order to neutralize speculation, liquidity easing in debt markets that is supported by the ECB is positive, but in terms of incentives creation for reform due to more stringent budget constraints protracted struggle with speculations may result in loss of distinction between individual sovereign solvency and the union monetary instability;
- asymmetric fiscal space exhaustion and differences in capabilities to respond to future macro shock could be observed as a result of fiscal fragmentation. For countries with lower national debt it will be easier to cope with both individual and collective shocks. They will be able to make new loans that could be ensured with the trust, while others will require changes in conditions or membership in the EMU, or changing the modality of the monetary policy of the ECB. In other words, due to the fragmentation, the opportunity to increase the national debt for EMU reasons will face the problem of escalating protracted shock precondition for redistributive conflicts. This can cause undesirable political tensions and speculation against countries in which debt markets are «weak points»;
- as the fragmentation during 2009–2012 debt crisis was accompanied by speculation against structural rigidity of certain countries (their hypothetical inability to implement reforms to restore competitiveness so as to minimize the social cost of the reforms due to accumulated debt and the value of spreads), it can further encourage speculation against failure of consistently implementing reforms in the area of structural flexibility;
- fragmentation of the EMU debt markets remains as a key prerequisite for euro failure to take a strong position in the system of global monetary relations. Riskier markets will be forced out of sight of the interests of median global investors and attract only those who specialize in high-risk operations. One should not exclude the situation in which individual countries will have a motivation to «trade voice» in the structures of the EU-NATO in exchange for a more loyal refinancing scheme. Less risky markets will attract representative global investor, but demanders with significant resources may not be motivated enough with low yield debt countries called «quiet harbors». There could be a situation of cycle appearing that switches investors from riskier instruments to «quite harbors» instruments and vice-versa under the influence of global-centric shocks or changes in investment strategies of key market players. That is, the fragmentation of the EMU debt markets brings additional volatility in capital flows and weakens global outlook of euro;

- significant differences in the debt situation and its assessment by the markets in the context of EMU deteriorate the initial search for consensus in terms of transformation mechanism of macroeconomic policy in the euro area. Reforms 2011–2012 showed a lack of radicalism precisely because most indebted countries were unable to comply with tight requirements for limits on primary deficits, despite the fact that before the implementation of the euro, they were more loyal to the restrictive Maastricht criteria. This means that the design of macro policies in EMU is very sensitive to political consensus, which is influenced by current circumstances. Steps that should be taken for a proper functioning of the monetary union in Europe have inconsistent design mainly because of fiscal fragmentation that deepens the asymmetry in the distribution of the burden of providing macro-financial stability. Moreover, this asymmetry is enhanced in the context of two directions: a) countries burdened with excellent national debt burden will hold out heavier burden of monetary union membership; b) countries that are in the early stages of real convergence, but with a lower level of debt, may find themselves in a situation where they subsidize the richer countries with higher debt burden. In both cases, this debt creates preconditions for political vulnerability of EMU and thus limits the ability of the ECB to present euro in better position in global monetary processes.

Conclusion

Analysis of the processes of fiscal fragmentation in the euro area could be observed with a trace of evolutionary genetics, that is before the introduction of the common currency EMU member countries were quite different in terms of debt burden. The fact of the functioning of the common currency cannot be considered as the cause of divergence in EMU. The debt crisis has arisen through prudent mix of distorted incentives to reduce national debt among global liquidity expansion with weak institutional mechanism of fiscal rules and fiscal response to the effects of financial imbalances. Escalation of the global financial crisis to the sovereign debt crisis in the EMU was accompanied by a sharp fiscal fragmentation on grounds of how the member countries were pressured by the accumulated financial imbalances. Thereafter, fragmentation strengthened due to the emergence of a new phenomenon – speculation against structural rigidities that weakened the division of the countries that were shocked by imbalances and countries that don't, so it intensified pattern of divergence, which is the feature of accumulated debt and the ability of fiscal consolidation that has credibility. ECB intervention in speculation against the debt situation of the south countries softened. However, fiscal fragmentation is a significant obstacle for long-term stabilization of the EMU, which is incompatible with the role of the euro as a reserve currency. The main risk is to increase cyclic asynchrony due to asymmetric access to finance, significant differences in confidence in the measures of fiscal consolidation, the emergence of redistributive conflicts due to the inability to respond to new shocks by means of increasing national debt.

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