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THE EUROPEAN DEBT CRISIS

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ABSTRACT

This paper analyzes the main macroeconomic indicators since 1995 in selected European Union countries as well as in the eurozone until 2017. By using a comprehensive comparative analysis of external account development and the public debt level, the paper found that there is a trend towards a divergence process instead of the intended real convergence process in some eurozone countries. In this regard, in line with the present stage of sustainability of public finance, the paper provides a cross-country analysis of individual eurozone countries until 2017.

The main findings of the paper are that countries that lost their competitiveness had high current account deficits, which caused fiscal deficits and led to unsustainable level of public debt in some peripheral countries. Although the creation of the European Monetary Union was a step in the right direction, some eurozone countries have permanently ignored the rules set out in the Stability and Growth Pact. Therefore, in order to avoid fiscal unsustainability and put the economy on a balanced, sustainable and strong economic growth path in the EU countries, a credible medium-term fiscal framework for fiscal union and consolidation plan is essential. In addition, implementing structural reforms, clear commitment of individual authorities to these reforms, and a proactive policy in the decision-making process, including improvement of governance on all levels of the European Union, are needed.

JEL CLASSIFICATION & KEYWORDS

■ H60 ■ H61 ■ H63 ■ FISCAL DEFICIT ■ PRIMARY FISCAL BALANCE ■ PUBLIC DEBT ■ SUSTAINABILITY OF PUBLIC DEBT

INTRODUCTION

As result of a very ambition goal – the creation of European monetary union (EMU), the Maastricht Treaty was adopted. In this Treaty are clear specified all the necessary conditions for a well-functioning EMU. In addition, but, in particular, to bring the public finance in individual countries under control, the European leaders also decided to create the Stability and Growth Pact (SGP)[1]. The main goal of this paper is to analyze the main factors behind the present unsustainable fiscal development in some eurozone countries.

Theoretical approach

The Theory of Optimal currency area clearly demonstrates the prerequisites for a well-functioning currency area[2]. Mundell in his theory emphasized that an independent monetary policy is essential. In addition, Mundell underlined that for creation an optimal currency area should be fulfilled the following conditions[3]:

- Individual countries have the same symmetric cycles,
- the potential members of monetary union should have the highest level of political integration,
- in an Optimal currency area there should be high degree of flexibility of nominal wages and prices,
- one of the critical factors for establishing an optimal currency area is trade interconnection and the existence of mobility of production factors.

Since the European Monetary Union has been in place for more than 14 years, it is necessary to make ex-post assessment of previous economic development, which contributed to the present divergence process and unsustainable level of public finance in some eurozone member countries.

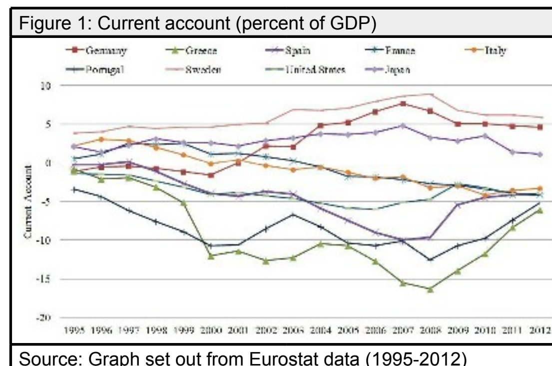
The past development of the EMU

In order to better understand the present stage of EMU development it is important to analyze past development. The question is: What are the main factors which significantly contributed to the deterioration of overall development in EMU. Which factors are behind the fiscal unsustainability – debt crisis, wide spread economic imbalances and vulnerability of some EMU member countries? The process of external imbalances is closely related to the current account deficit.

Current account

External balance is always very important for the assessment of competitiveness and a real convergence in eurozone countries. Figure 1 shows the development of the current account since 1995, including an outlook 2012. Chart below clearly demonstrates that a more convergent trend within eurozone countries was before the creation of single currency, e.g., before 1999.

Figure 1: Current account (percent of GDP)



Source: Graph set out from Eurostat data (1995-2012)

[1] The Stability and Growth Pact was created in 1977 in Amsterdam. The SGP clearly set up the rules for managing the public finance for each country of European Community.

[2] Historically, the first Theory of Optimal Currency was formulated at the beginning of 60's by Nobel Prize winner Robert Mundell (1961), at the present professor at the Columbia University. Later, this theory was developed by McKinnon (1963), Kennen (1969) and deDrauwe (1994).

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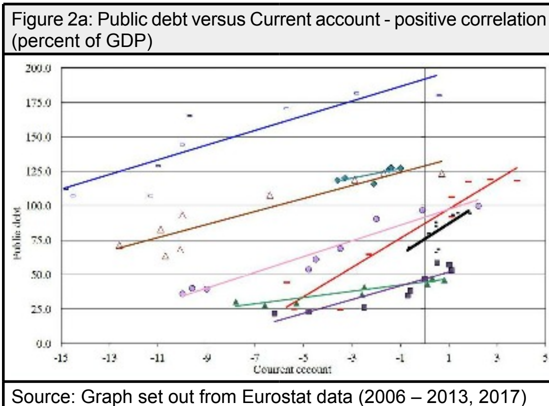
[3] See Sipko, J. Medzinárodný platobný styk, Elita , pp. 56-61, 2000.

On one side, countries such as Greece, Portugal and Spain have had a current account deficit since 1995. On the other side, Sweden has a higher current account surplus. Sweden also has a low fiscal deficit and public debt. The figure 2a is based on the assumption, that the higher the current account deficit, the higher the public debt. It is typical for such countries as Greece, Portugal and Spain, but also Ireland, the Slovak Republic and Slovenia. In addition, the same conclusion might be for a majority of eurozone countries during the period between 2006 and 2013.

Figure 2a: Public debt versus Current account - positive correlation (percent of GDP)



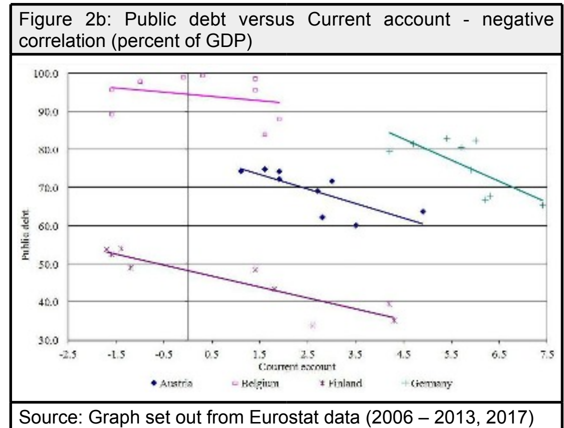
Source: Graph set out from Eurostat data (2006 – 2013, 2017)

The results of fitting a linear model to describe the positive linear relationship between the public debt and the current account balance of some selected countries are summarized in table 1. Since the p-values, calculated in the ANOVA tables, are less than 0.05, therefore, there is a statistically significant relationship between the public debt and the current account balance at the 95.0% confidence level, including such counties as Denmark, Estonia, Greece, Ireland, Portugal, the Slovak Republic, Slovenia, and Spain, as well in average in eurozone countries. The correlation coefficients from 0.7086 (Estonia) to 0.9692 (Spain) indicates a relatively strong linear relationship between the public debt and current account balance. However, that is the principally strongest positive correlation in the countries with the highest current account deficit.

Conversely, the higher the value added of export, the higher current account surplus, the lower public debt as (see table 1) in particular, in Germany (for linear relationship in the period of time 2006 – 2013 measured by correlation coefficient r = –0.7191; p = 0.0290), Austria (r = –0.7665; p = 0.0160), and Finland (with the strongest negative correlation r = –0.9055, p = 0.0008). For the graphical explanation of negative linear correlations of current account surplus and public debt see the considerable negative slopes of the fitted linear models of Austria, Finland and Germany on figure 2b.

The r-squared statistic of the last row in table 1 indicates that the linear model of average public debt as fitted explains a high proportion (52.6662%) of the variability by change of average current account for the eurozone countries.

Figure 2b: Public debt versus Current account - negative correlation (percent of GDP)



Source: Graph set out from Eurostat data (2006 – 2013, 2017)

On average for the eurozone countries the correlation coefficient equals 0.725715 (p = 0.0269) and indicates a moderately strong positive linear relationship between the

Table 1: Results of regression and correlation analysis of Public debt vs. Current account (2006-2013)

Linear model:	Slope		F-Ratio	p-Value	r	r-squared (adjusted for d.f.) in %
Public debt vs. Current account[1]	Least Squares Estimate	T Statistic			Correlation Coefficient	
Austria	-3.8045	-3.1578	9.97	0.0160	-0.7665	52.8620
Belgium	-1.0786	-0.7384	0.55	0.4843	-0.2688	7.71
Denmark	1.20	2.18	8.2	0.0253	0.7307	46.7348
Estonia	0.2003	2.72	7.6	0.0326	0.7086	43.1037
Finland	-2.8803	5.42	31.86	0.0008	-0.9055	79.4118
France	-4.5403	-0.5887	0.35	0.5746	-0.2172	4.75
Germany	-5.5687	-2.7376	7.49	0.0290	-0.7191	44.8062
Greece	5.72	5.0918	25.93	0.0014	0.8874	75.7031
Ireland	10.40	7.45	61.69	0.0001	0.9477	88.3541
Italy	1.1176	0.2961	0.09	0.7758	0.1112	1.68
Netherlands	0.0499	0.0254	0.00	0.9804	0.0096	0.0092
Portugal	4.50	6.41	38.49	0.0004	0.9198	82.4139
SR	2.80	8.0219	64.35	0.0001	0.9497	88.7877
Slovenia	5.0290	5.51	30.42	0.0009	0.9016	78.6188
Spain	5.84	10.85	108.55	0.0000	0.9692	93.0764
Switzerland	0.3601	0.5996	0.36	0.5677	0.2210	4.43
Eurozone	11.00	2.08	7.79	0.0269	0.7257	45.9042

[1] The Durbin-Watson (DW) statistic tests the residuals to determine if there is any significant correlation based on the order in which they occur in your data file. Since the p-value was greater than 0.05, (in all cases) there is no indication of serial autocorrelation in the residuals at the 95.0 % confidence level.

Source: Author own calculation based on Eurostat data (2006-2017)

Table 2: Real GDP growth, current account, fiscal deficit, public debt of selected eurozone countries												
Country	GDP			Current account			Fiscal deficit			Public debt		
Year	2010	2011	2112	2010	2011	2012	2011	2012	2013	2011	2012	2013
Finland	6.6	3.5	2.2	3.1	2.5	2.5	-1.3	-1.2	-1.2	50.0	53.1	55.9
Germany	3.6	2.7	1.3	5.7	5.0	4.9	-1.0	-1.1	-0.9	80.9	79.9	77.5
Netherlands	1.6	1.6	1.3	7.1	7.5	7.7	-4.4	-3.5	-3.7	64.4	65.8	67.9
Greece[*]	-4.4	-5.0	-2.0	-10.5	-8.4	-6.7	-9.5	-7.2	-6.9	164.5	176.5	179.1
Italy	1.3	0.6	0.3	-3.3	-3.5	-3.0	-4.0	-2.7	-2.5	119.0	120.5	121.2
Ireland	-0.4	0.4	1.5	0.5	1.8	1.9	-10.3	-8.5	-7.7	104.2	113.3	118.5
Portugal	1.3	2.2	-1.8	-9.9	-8.6	-6.4	-7.2	-4.8	-4.4	102.8	112.7	115.9
Spain	-0.1	0.8	1.1	-4.6	-3.8	-3.1	-6.7	-6.0	-5.6	69.1	73.6	78.0
Slovakia	4.0	3.3	3.3	-3.5	-1.3	-1.1	-6.0	-5.7	-5.9	45.3	48.8	51.6
Euro area	1.8	1.6	1.1	0.8	0.8	1.0	-4.1	-3.5	-3.3	86.9	88.6	89.5

* Global financial crisis unprecedentedly hit almost all EMU countries, but in particular, Greece, Ireland and Portugal, with Italy and Spain shortly thereafter. In Greece, the origin of crisis lies in the government sector. The Greek authorities were not able to manage public finances appropriately. On one side, revenue significantly decreased and expenditure rose due to high social transfers and high pensions. Therefore, the Greek authorities applied for a program with the European Commission, European Central Bank, including the International Monetary Fund. The program was oriented on both fiscal policy and structural policy. In terms of an adjustment program and its implementation in Greece, the political commitment was not materialized. Therefore, Greece applied for the second program with the EC, ECB and IMF. This program was focused on debt sustainability. In addition, in order to realize productivity gains, the new program was oriented on liberalization of labor and service markets. So, this approach concentrated on improvement of competitiveness. The main idea was to eliminate wage rigidities and to create conditions so that the wage level would be consistent with the growth of productivity. In this regard, labor costs should be improved by about 15% by 2015. Furthermore, a new program has addressed Greek unsustainable debt dynamics. Except a nominal reduction in the value of bonds by 53.5 percent, there is also an interest rate reduction on official debt. Despite these very positive conditions, which were very generous, there is still a problem with financing needs. Based on the conditions set out in the program, Greece will be able to reduce public debt to a range of 116-117 percent by 2020. In order to fulfill this very ambitious goal, the Greek authorities should implement all the necessary measures in a timely manner.

Source: Eurostat and IMF data, Fiscal Monitor (2006-2017)

public debt and current account. In reality it means that the higher is the current account deficit, the higher the public debt during the period between 2006 and 2013.

The global financial crisis significantly contributed to the deterioration of fiscal sustainability in eurozone countries (see table 2). The table 2 clearly demonstrates two groups of countries.

On one side, such countries as Finland, Germany and Netherlands completed structural reforms in the past and have relatively high productivity growth and their products are very competitive in the international market. Those countries do not have problems with the sustainability of public finance and debt sustainability. This group of countries has reached a current account surplus even when the global economy was in a mild path of recovery (2010 – 2011). High productivity growth combined with the highly competitive products significantly contributes to the positive external positions in these countries.

On the other side, countries such as Greece, Ireland, Italy, Portugal, Spain and Slovakia, with low level of structural reforms, very low productivity growth and with a relatively very low level of competitiveness have reached current account deficits. Researchers, academia and policy-makers generally agreed that the higher the current account deficit, the higher the public debt.

Based on the latest economic outlook provided by the EC, ECB, IMF and OECD, the deterioration of public finance, namely fiscal deficit will improve during the 2012 – 2013; however, the public debt sustainability will follow an although mild, but deteriorated path for the same period for all debtor countries – Greece, Ireland, Italy, Portugal and Spain. Since the EMU was created, some excessive imbalances among the eurozone countries have appeared.

The outlook for the general government overall balance

For fiscal sustainability, reducing the fiscal deficit is crucial. The development of the fiscal balance of some eurozone countries such as Estonia, Finland, Germany, Greece, Ireland, Italy, Portugal, Slovak republic and Spain is in figure 3.

A part of this comparable analysis is Switzerland, a non-member country of eurozone. The figure 3 shows the historical development of the overall fiscal balance[4] since 2006, e.g., before the outbreak of the global financial crisis, during the crisis and the global recession until 2017.

Implementing the generally adopted fiscal rules within the eurozone countries during the good years is essential. However, some countries such as Greece and Portugal have permanently broken the rules mentioned in the SGP and have reached a fiscal deficit of about 6.0% of GDP and 3.8% of GDP, respectively in 2006 when the overall fiscal deficit for eurozone counties as a whole was only 1.3% of GDP.

The critical moment for the development of public finance, but mainly for overall general government balance was the year 2009. All the countries mentioned in the graph have significantly increased their fiscal deficit, namely the Greek and Irish deficits[5] reached 15.6% and 13.9 % of GDP respectively.

[4] Before the outbreak of the global financial crisis in 2006, there were only a few countries in the eurozone that reached a fiscal surplus, namely Estonia (3.2 % of GDP), Finland (4.0 % of GDP) and Spain (2.0% of GDP).

[5] In terms of fiscal sustainability, Ireland is a very specific case. In 2006, Ireland reached a fiscal surplus of around 2.9% of GDP. However, by 2010 the fiscal deficit increased to 30.9% of GDP. This huge increase of deficit was connected with additional expenses required to clear the bad loans in the banking sector. In 2011, the fiscal deficit was at a level of 11.2% of GDP and based on „Troika – EC, ECB and IMF “, the adjustment program will gradually reduce it to a sustainable level by 2017 and might reach a fiscal deficit at a level of around 1.3% of GDP. In comparison with some other countries, which are also under the strong adjustment program with „Troika“, Ireland's authorities are committed to the program itself and take accountability in stabilizing the national economy.

Figure 3: Development of general government overall balance (percent of GDP)

Source: Graph set out from Eurostat data (2006-2017)

Figure 4: Outlook for public debt

Source: Graph set out from Eurostat data (2006-2017)

A specific case in the analysis is Switzerland. The country was hit by real external shocks; however, Switzerland is an extraordinary textbook example, because it was able to manage both economic and fiscal policies, mainly the general governance overall balance, for the whole period in an appropriate way[6].

The good news is that based on this optimistic scenario, all eurozone countries will be able to reach a fiscal deficit of below 3% of GDP by 2017. However, this scenario has some unknown variables, which are influenced by uncertainties concerning the recovery of the world economy, how individual countries will be able to finalize the restructuring of banking sector, how countries will be able to deal with the high level of public debt, whether they will be committed to adopting and implementing the structural reforms program and whether there will be increased productivity growth and increased competitiveness in the economy. Despite the fact that the general government overall balance will improve significantly by 2017, the public debt will reduce only gradually.

Outlook for public sector debt

Despite the fact that the development of public debt over the medium-term will slightly decline, it will stay at relatively very high level. On Figure 4 is presented the public debt development from 2006 until 2017[7].

To better understand the overall trends, eurozone countries such as Estonia, Finland, France, Germany, Greece, Ireland, Italy, Portugal, Slovak Republic and Spain are chosen for analysis. In addition, there is an extraordinary example of managing public finance and the economy as a whole. Therefore, as shown by the figure 3 – general government overall balance, Switzerland is a country with a very good track record in terms of maintaining both an internal and external economic equilibrium.

Although Switzerland is not a member of eurozone and neither of the European Union, it demonstrates how it is possible to manage the overall macroeconomic policy mix including economic policy. Switzerland's success lies in its ability to manage the macroeconomic policy mix and its implications for the real economy in supporting competitiveness. This country has for many years demonstrated a strong export performance which is based on high productivity growth and competitiveness. All these factors have significantly contributed to a relatively very high level of current account surplus. Figure 4 clearly demonstrates that historically, Switzerland's authorities were committed to maintain public finance at a manageable level of public debt even during the outbreak of the global financial crisis and the global recession. This is an unprecedentedly successful case and might be a lesson for some highly indebted countries in the eurozone.

However, there are only three countries Estonia, Finland and Slovakia), which will maintain the public debt within the Maastricht nominal convergence criterion (60% of GDP). The two strongest economies in the eurozone, e.g., Germany and France, will not be able to reduce their public debt below the critical benchmark (60% of GDP).

The public debt development of eurozone countries under the formerly presented baseline scenario is not very encouraging. Even though the public debt of eurozone will decrease slightly by 2017, it will still be at almost 90% of GDP. Here again, similar to Switzerland, countries such as Germany and Finland with export driven economies and a high level of productivity and competitiveness, and stable economic growth, will be able to reduce their public debt.

The majority of well-known PIIGS countries will be faced with reducing the public debt below 60% of GDP by 2017. Both Ireland and Spain had a level of public debt of 24.7% of GDP and 39.8% of GDP, respectively, before the outbreak of the global financial crisis and recession in 2006. During the crisis, this indicator has remarkably increased and led to an unsustainable fiscal position.

Two other countries, e.g., Greece and Italy, had public debt of over 105% of GDP even before the outbreak of the global financial crisis. Although in 2006 Portugal had a relatively very low level of public debt - 63.7% of GDP, close to the Maastricht nominal convergence criterion, it significantly increased during the debt crisis to almost double (two-fold) and might reach a peak of 123.6% of GDP in 2013.

The public debt burden will be a big obstacle for putting the economy of some individual eurozone countries to a sustainable path. From 2006 to 2014, the average public debt for the overall eurozone will increase from 68.6% of GDP to 94.7% of GDP. Although there is currently a downward trend in reducing public debt, based on latest published data (EC, ECB, IMF), the average public debt for the overall eurozone in 2017 could be higher by 30% over the Maastricht nominal convergence criterion.

Some eurozone countries such as Germany, Finland and Netherlands will be able reduce their public debt gradually. However, for countries that lost competiveness such as Greece, Portugal, Spain, including Italy, comprehensive structural reform and strong adjustment programs and their implementation would be critical for reducing public debt and creating favorable conditions to putting the economy on a sustainable path. To comprehensively assess the overall fiscal sustainability, recognition of the volume of gross financing needs is imperative for the near future.

Gross financing needs

Within the medium-term fiscal development, the level of gross financing needs would be critical. Figure 5 shows how big is the volume of the gross financing needs for some selected eurozone countries, including four non-eurozone countries e.g., the Czech Republic, Denmark, Sweden and the UK. In addition, as part of this analysis, there are two countries – Switzerland and Norway, which are not members of the EU.

Based on officially published data from the IMF, the average gross financing needs for the whole eurozone as a whole in 2012 might reach 18.7% of GDP and in 2014 this volume will increase up to 23.8% of GDP. In reality it means that gross financing needs for the eurozone countries will increase between 2012 and 2014 by 5.1% of GDP.

From the figure 5 is clear that a majority of eurozone countries, mainly highly indebted countries, have big differences between the financing costs of maturing debt and the financing costs for the fiscal deficit. All PIIGS countries will need a very high portion of financing needs in 2014.

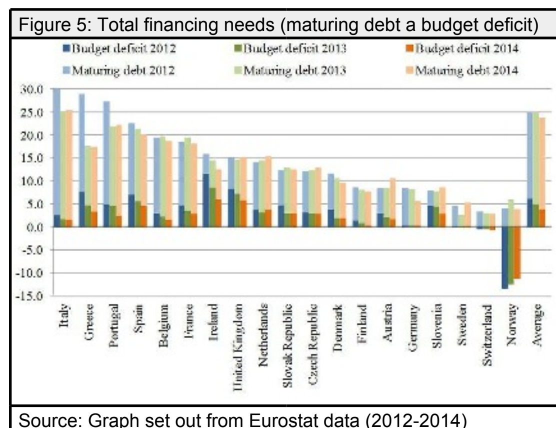
[6] This is a very particular case in terms of managing economic and fiscal policy, including the overall macroeconomic policy mix. Switzerland does not have any commitments to the Stability and Growth Pact unlike all the eurozone countries and is maintaining public finance and the overall national economy in a very good shape even during the crisis period. How is this possible? The answer might be the decent leadership of the country with combination of the orientation on export performance with high productivity of growth, including accepting the rules of game, a relatively high level of transparency and a low level of corruption.

[7] Data presented are based on the latest World Economic Outlook (WEO, October, 2012).

The Figure 5 also shows that a majority of eurozone countries have higher financing needs than some non-eurozone countries, such as Denmark and Sweden.

It might be concluded that those countries such as Norway and Switzerland, where the authorities are committed to structural reforms programs, to maintaining fiscal discipline and to supporting export driven economy based on a high level of productivity growth have a very low level of gross financing needs.

Figure 5: Total financing needs (maturing debt a budget deficit)



Source: Graph set out from Eurostat data (2012-2014)

Conclusion

The creation of European Monetary Union was an unprecedented step in the right direction in modern economic history. Pre-monetary union led to real convergence in some important indicators such as GDP, interest rates, net international investment position and current account.

However, when EMU was created, the positive trends still appeared in some major macro and microeconomic indicators. However, one of the critical issues was loss of competitiveness in some countries as well as low fiscal discipline. The low level of competitiveness brought low economic growth and declined revenue of the general government budget. In this regard, official data analysis offered a clear conclusion that a majority of countries joining the EMU permanently broke down the basic rules in the Stability and Growth Pact. In addition, a majority of countries lost competitiveness and have reached deficits on current accounts. The former factor significantly contributed to the present unfavorable situation in EMU countries as a whole.

Member States of EMU agreed on far-reaching fiscal consolidation plans and structural reforms. The most important factor is implementation of all necessary measures in this regard. However, these measures should go with the existing international commitments, to foster competitiveness and to increase employment, while maintaining consolidation targets.

To follow eurozone fiscal consolidation, strengthening of fiscal governance is needed. In line with this, the lately adopted „fiscal compact“ is promising. Improving fiscal governance will enshrine the fiscal „golden rule“ in EU member countries.

The real life of recent developments clearly shows and there is no doubt that behind this very unfavorable economic development in EMU member countries is the poor leadership and the lack of governance of European Union. Many representatives for EMU member countries failed to fulfill their own commitments, but mostly political ones. The question is whether the European Union will be able to function without political commitment and whether it can manage itself.

The EMU will survive only if politicians take responsibility and decision-makers are highly competent. So, the political responsibility and high profile of decision-makers, including improvement of leadership and governance are the main prerequisites for the recovery of EMU and the establishment of a credible framework for fulfilling all necessary conditions set out in Optimal currency union. In line with this, to fulfill all necessary preconditions for a well-functioning European Monetary Union, a strong commitment of all participating parties in supporting its credibility is needed. In this regard, a clear framework for a fiscal union, including risk-sharing, would be essential.

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