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THE EFFECTS OF 2008 CRISIS ON THE FINANCIAL SUSTAINABILITY IN EUROZONE: A COMPARISON OF PRE AND POST CRISIS PERIOD

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ABSTRACT

2008 crisis shows that the countries especially European countries should monitored financial stability as well as price stability. In other words the financial stability becomes more important issue after the crisis. While financial stability of union members is important to monitor in the post-crisis period, the comparison of pre-and post-crisis period provides an opportunity for a better understanding of the impact of the crisis on financial stability. The purpose of our study is whether to provide financial sustainability for the European Monetary Union member states in the pre-crisis and post-crisis period. In other words, in terms of financial sustainability pre and post crisis periods will be compared.

We examined the primary surplus and debt relation in Eurozone explanations of the differences for after and before 2007 (2002-2007 and 2008-2012 periods). According to test results, primary surplus has the negative affect on the debt for two periods. But in the second period, the power of this affect is increased. In the first period, the coefficient of the primary surplus is statistically significance at 10%. However in the second term, the coefficient is statistically significant at 1%. In both of the periods, the primarysurplus has negative impact on debt. The negative impact is increased after 2007.

Keywords: Global Financial Crises, Financial Sustainability, Eurozone, Pre And Post Crisis Period, Panel Data Analysis.

1. INTRODUCTION

Before the 2008 crisis, framework for policy implementation of Central Banks was constituted by traditional policies. However, after the global financial crisis, central banks taking into account the failure of traditional policy began to prefer heterodox policies. The changes in policy implementation concept have caused the policy objectives that were used for years to change and extend. In this context, in order to ensure macroeconomic stability and sustainability, the necessity of financial stability as well as price stability has emerged.

Developed countries who want to get rid of the devastating effects of global financial crisis found the remedy in expansionary policies. Expansionary policy implementation on one hand converged interest rates to zero and on the other

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hand value of national currency decreased against foreign currencies (currencies of developing countries) in developed countries.

Interest rates reduced to nearly zero with policy implementation and high liquidity is presented to the market. However, the liquidity provided to the market in the U.S and Europe has not reached to small business. Even small business loans remain below pre-crisis period (Stiglitz, 2010). Provided liquidity to the market to fight the crisis in developed countries has led to huge budget deficits.Monetary union member countries by implementing expansionary policies caused serious damage to financial stability and put a heavy burden on public finances. Fighting against 2008 crisis has shown us that, constant long-run deficit are harmful to the economy and fiscal incentive is an effective tool against business cycle. On the other hand, fiscal incentives have the power to worsen the unemployment problem when immediate measures taken to reduce the deficit (Romer, 2012).

The debt ratio had been rising since early 1970s and it had reached the same level as the aftermath of II.WW in 2007. In the period of after II.WW developed countries still had young population. However, in 2007 population aging affected fiscal accounts negatively due to present value of pension and high health care expenditure. In addition in early 1950s financial markets were less complicated and more constrained and it was easier to roll over public debt (Cottarelli, 2011).

When some debtor countries were in high risk of nonpayment of their debts, the market attitude change and made borrowing very costly for these risky countries. This exasperate the debt crisis in Eurozone countries, debtor countries chance to pay their debt obligations decline and the chance of bankruptcy of banks in creditor countries worsened further as a consequence (SESRIC Report, 2011: 4). Outside Europe like in Korea, Australia and New Zealand debt ratios were low, but historically high in Portugal and Greece (Cottarelli, 2011).

The debt crisis in European countries draws attention to the relationship between single monetary authority and several fiscal authorities where each independent state leads its own fiscal policy (Central Bank of Swaziland, 2012). Because fiscal union is not provided in the monetary union, some policy implementations have been made. According to the Maastrich Criteria enacted in 1992 budget deficit/GDP ratio cannot be over 3 percent in member countries.Also the treaty underlines that the national debt of member countries should remain lower than 60 percent of GDP. In 1997 *Stability and Growth Pact* (SGP) is generated to constitute and maintain strong public finances and basic financial rules were determined more precisely. The main purpose of SGP is that the fiscal discipline was to become a permanent feature of EMU. These rules are intended toeliminate the lack of common fiscal policy in order to protect the euro's stability. The absence of an effective control mechanism regarding public expenditures in union member countries has caused noncompliance with the rules (Filipovskiand, 2013: 7). Determination of monetary policy by supranational mechanism (ECB) in the face of autonomous fiscal policy determined on a national scale emerges as a problem in itself for financial stability.

The debt crisis in European Union member countries, interest in fiscal sustainability and policy response and discussion of the relationship between independent fiscal policy in a monetary union in academic literature present important view to both existing and potential monetary unions (Central Bank of Swaziland, 2012).

The financial crisis has also affected developing countries as well as developed countries. In developing countries, the appreciation of the national currency by weakening export competitiveness has led to a negative impact on balance of trade. An increase in the trade deficit has emerged as a result of appreciation of the national currency. Given the deterioration of macroeconomic balances as a result of growing trade deficit and appreciation of national currency in developing countries, the sustainability of current account deficit has declined. Increasing country risk and deteriorated current account balance of developing countries has led to borrowing costs increase in international funding markets and

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financial stability decline. It was found with the global crisis that financial stability is necessary to ensure price stability and macroeconomic stability, on the other hand it is important to minimize the effects of cyclical fluctuations emerged globally. In this context, in both developed and developing countries the necessity of monitoring the financial stability more closely has emerged.

European Commission uses two numerical indicators to monitor the long-term financial sustainability: S1 and S2 indicators (Balassone et al., 2009). S1 measures the size of the permanent budgetary adjustment necessary for the debt to reach 60% of GDP in 2050. S2 on the contrary, shoes the size of the permanent budgetary adjustment necessary to fulfill the inter-temporal budget constraint (European Commission, 2007). Then these indicators have been improved and take the form of S3 and S4. The S3 indicator is a variant on the S2 indicator with the difference that instead of required adjustment to reach the debt/GDP ratio in 2050, required adjustment is arranged as a gradual improvement of the primary balance in the years leading to 2050. The S4 indicator is a variant on S1 indicator but measures the required gradual adjustment in the primary balance in period up the target year in order to reach the balanced budget by 2050. The public finance position at the end of that period is much sounder, because the S4 indicator (balanced budget) imposed a stronger restriction than the S1 indicator (Debt/GDP ratio 60% at 2050) (Balassone et al., 2009). Although the ensuing of financial sustainability is an important issue, it is also important to investigate the state of financial sustainability inthe both pre-crisis and post-crisis period.

Subject of our study is whether to provide financial sustainability for the European Monetary Union member states in the pre-crisis and post-crisis period. In other words, in terms of financial sustainability pre and post crisis periods will be compared. With the transition of monetary union countries to euro, increasing public spending, current mismatch between fiscal and monetary policies and increased pension and health care expenditure of aging population of Europe, have weakened their financial sustainability. The pre-crisis period started with the transition to euro and lasted until 2007, beginning of the crisis. The post crisis period is from 2008 up to the latest available data year.

In our study we have compared pre and post crisis period, investigate whether the origins of the financial crisis lay before the crisis period and whether financial architecture had a fragile structure in pre-crisis period. Thus, it will be ensured to show the effects of the crisis on fiscal sustainability in union countries. In the first part of our study literature on financial sustainability have been discussed. The empirical analysis and results are reviewed in the second part.

2. LITERATURE SURVEY

Baldi and Staehr (2013) studied financial sustainability pre and post crisis periods with quarterly data for EU27 countries by using panel data fiscal reaction functions. 2001-2008 periods were identified as pre-crisis period and 2009-2012 as post crisis period. The fiscal reaction functions changed significantly after global financial crisis broke out. The results show that there is an important deterioration in primary balance much larger and more precisely than the estimated debt stock. These results are same for all country groups, but especially for countries with fiscal problems. Global financial crisis represented a structural change, after that structural change implemented fiscal policy differs significantly from the policy before crisis both qualitatively and quantitatively.

Grauwe and Ji (2012) examine the fragility of government bond in Eurozone and their vulnerability for self-fulfilling liquidity crises than those non-union countries by fixed effects model. They found out that spreading of the crisis within Portugal, Ireland, Greece and Spain during 2010-2011 was not because of debt-GDP ratios and fiscal variables. Rather, it was because of negative self-fulfilling market expectations which became very strong starting at the end of 2010.

Paloviita (2012) analyze the effect of real time uncertainty on fiscal planning and debt accumulation for two country groups separately. The first group consists of countries in geographical periphery which are Greece, Ireland,

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Italy, Portugal and Spain. The second group of countries is other euro countries that are Austria, Belgium, Finland, France, Germany and Netherlands. According to the results the high debt of periphery countries was not caused by short-term pro-cyclical ex ante fiscal planning. High debt ratios, policy changes after budget planning, accumulated macroeconomic imbalances have added to the accumulated debt ratios. As a result, author argues that high debt stock is due to pre-crisis period.

Cipollini and Iolanda Lo Cascio (2012) estimated the response of primary surplus to debt ratios to GDP to test for debt sustainability in 12 EMU countries (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain) using a factor model. The results of the analysis suggest that the 12 Euro zone countries as whole are on a sustainable public debt path.

Izák (2009) investigated the effects of the primary balance on the unit costs of debt servicing in 10 post socialist members of the EU(Latvia, Poland, Romania, Slovenia, Slovakia, Bulgaria, the Czech Republic, Estonia, Hungary and Lithuania)with panel data analysis for 1995-2009 periods. According to the results except Poland other countries could stabilize their debt-GDP ratio with running a primary deficit.

Landolfo (2008) analyzed the fiscal sustainability in Euro Area (1966-2004) and USA (1977-2003). As a result of the co-integration and unit root tests applied to public debt, primary surplus and interest rates, both Euro Area and USA have the fiscal sustainability.

Staehr (2007) analyzed 12 union member countries and 10 to-be member countries of Central and Eastern Europe (CEE) by using panel data fiscal policy reaction functions for 1995-2005 periods. CEE countries have worse overall budget position than the Eurozone countries. However it is easier to adjust the budget balance in CEE countries. The primary balance in the Eurozone countries get stronger with increase in interest payments, but it is not in CEE countries. Both autonomous and counter-cyclical fiscal policies have little or no effect on cyclical variability in the Eurozone countries, but such policies are effective in Central and Eastern European countries.

Hauneret.al. (2007) examined the fiscal sustainability in G-7 countries (France, Germany, Italy, United Kingdom, Canada, Japan and United States). According to the results of the analysis using general equilibrium model for the period 2001-2005 in referred countries, primary surplus/GDP rate needs to be improved up to %4 to ensure fiscal sustainability.

Güvel and Kalyoncu (2006) searched the fiscal sustainability of 16 EU countries (Germany, Austria, Finland, Ireland, Spain, Switzerland, Malta, Portugal, Greece, Belgium, Denmark, France, Netherlands, United Kingdom, Luxembourg and Hungary). They analyzed the public expenditure co-integration analysis by using public revenue and interest payments in a different period of time for each country for 1968-2001 periods. As a result of the paper, they concluded that fiscal sustainability can be achieved by fiscal policy except for Belgium, Denmark, France, Netherlands, United Kingdom, Luxembourg and Hungary series.

Croce and Ramon (2003) examined fiscal sustainability of a group of countries by individual causality and table analysis for 1990s decade. They concluded that Turkey, Argentina and Brazil did not have fiscal sustainability in 1990s and fiscal sustainability exists in Belgium, Indonesia, Ireland and Mexico.

Uctum and Wickens (2000) studied the fiscal sustainability of USA and EU11 countries (Germany, France, United Kingdom, Austria, Denmark, the Netherlands, Spain, Belgium, Italy, Ireland and Portugal) for 1965-1994 periods. The study examined stationarity of public debt stock series by unit root analysis. The results showed that there is not fiscal sustainability in the countries except France, Denmark, the Netherlands and Ireland.

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Hamilton and Flavin (1986) analyzed the fiscal sustainability of USA for period 1960-1981 by applying unit root test to public debt stock/GDP ratio series. As a result of unit root analysis the series was found to be stationary and there was fiscal sustainability for USA.

Wilcox (1989) following the study by Hamilton and Flavin (1986) investigated the fiscal sustainability for USA by unit root analysis. The results showed that there was no fiscal sustainability for USA for the 1960-1984 periods.

3. DATA AND METHODOLOGY

The methodology is inspired by our previous work on fiscal sustainability on Eurozone where an analysis between 12 countries balanced panel covering 12 EMU (Austria,Belgium, Finland, France, Germany, Luxemburg, Ireland, Portugal, Netherland, Italy, Greece, Spain) over the period 1995-2011 was conducted. There are some similarities with the previous study. Data on the key variables of interest were sourced from the World Bank's *World Development Indicators.* As an indicator of fiscal sustainability debt/GDP ratio (de) is used. The primary surplus (pri) discussed as determinant of fiscal sustainability. In the previous paper, we found that there is long term relation between variables. In this analysis, we want to check that weather there are some differences after and before 2007.

In our analysis, firstly we tested whether debt/GDP series of 12 EMU countries have unit root. Secondly, in order to determine the effects of primary surplus, the panel data analysis is used. The panel data is analyzed using standard OLS techniques.

The panel data analysis has some advantages. We know the special relationship between the individual observations. There are some different approaches in the panel data research. The pooled model is estimating OLS to a panel data. In this concept, we cannot realize the differences of the individuals.

There is an important assumption for error term (e_t) in the standard OLS method. The condition that cov(x_t, e_t)=0 must be valid. Otherwise, our estimators are not efficient and unbiased. As a result of this assumption, in the panel data model, if cov(x_t, e_t)=0, we call a model a random effects, otherwise we call it a fixed effects model.

While the F-test is preferable for Fixed Effects Model, in Random Effects and Fixed Effects models the Hausman model specification test is used.

$$\left[\hat{\beta}_{FE} - \hat{\beta}_{RE}\right]' \left[\mathrm{Var}(\hat{\beta}_{FE}) - \mathrm{Var}(\hat{\beta}_{RE})\right]^{-1} \left[\hat{\beta}_{FE} - \hat{\beta}_{RE}\right] \sim \chi^2$$

The hypothesis that "Random (stochastic) effects are valid" is tested against fixed effects model. The Hausman test is one type of the Wald test, which predicts significant ρ-probability estimation under the Fixed Effects model and evaluated by Chi-square test.

3.1. Data

This paper investigates the stability of fiscal sustainability in a set of 12 EMU countries. For this aim we use a balanced panel covering 12 EMU (Austria, Belgium, Finland, France, Germany, Luxemburg, Ireland, Portugal, Netherland, Italy, Greece, Spain) over the period 1995-2011. Data on the key variables of interest were sourced from the World Bank's *World Development Indicators.*

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3.2. Descriptive Statistics

The common methodology starts with a descriptive statistics of these variables for the twelve countries (Table1). The econometric methodology consists of two steps. Firstly, panel unit roots tests is applied to the data in order to determine whether the series are stationary. Secondly, we checked that weather there is a structural break. And lastly we estimated the random effect model. Using random effect, we determine that there are any differences between after and before 2007.

Table 1: Descriptive Statistics

	De	Pri
Mean	66.7099	2904.627
Median	62.2500	2704.100
Maximum	143.9000	88800
Minimum	3.6000	-191906
Std. Dev.	33.4554	28466.89
Skewness	0.2648	-2.39103
Kurtosis	2.5371	17.6506
Jarque-Bera	3.9581	1850.584
Probability	0.1382	0.000000
Sum	12808.30	543165.2
SumSq. Dev.	213779.9	1.51E+11
Observations	192	187
Cross sections	12	12

According the Table 1, pri series is skewed left and not distributed normally. De is skewedright and distributed normally. In both of the series there is a significant difference betweenmaximum and minimum value.

3.3. Methodology

3.3.1. Panel Unit Root Tests

Several types of panel unit root tests are undertaken in this paper. The Levin, Lin, and Chu (2002) and the Breitung (2002) statistics have a common unit root process as their null hypotheses. The Im, Pesaran, and Shin (2003), Fisher-type test by Maddala and Wu (1999), as well as the Augmented Dickey Fuller (ADF) Fisher Chi-square (Dickey & Fuller, 1979) and the Phillips-Perron (PP) Fisher Chi-square (Phillips&Perron, 1988) tests have the null hypothesis as an individual unit root process.

Levin at al.(2002) and Breitung (2000) assume that all individuals in the panel have identical first order partial autocorrelation, but all other parameters in the error process are permitted to vary freely across individuals.

The model is expressed in the following three hypotheses evaluated, under the null hypothesis, there is a unit root:

$$(1): \Delta y_{it} = \delta y_{it-1} + e_t, H_0 : \delta = 0, H_1 : \delta \langle 0,$$
$$(2): \Delta y_{it} = \alpha_{oi} + \delta y_{it-1} + e_t, H_0 : \delta = 0, \alpha_{0i} = 0, H_1 : \delta \langle 0, \alpha_{0i} \in R$$
$$(3): \Delta y_{it} = \alpha_{oi} + \alpha_{1i} t + \delta y_{it-1} + e_t . H_0 : \delta = 0, \alpha_{1i} = 0, H_1 : \delta \langle 0, \alpha_{1i} \in R$$

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In model 2, the y_{it} series has an individual-specific mean but does not contain a time trend and in the model 3, the y_{it} series has an individual-specific mean and time trend.

Im at al.(2003), the Fisher-ADF and PP tests allow δ_i vary across cross-section, i.e. by allowing heterogeneity. Imet.al. tests the null hypothesis, there is an unit root. The null hypothesis recommends that non-stationary series in the panel are the series of all cross sections. The model is tested with a restrictive assumption that T should be the same across individuals.

3.4. Empirical Results

We check stationarity of the series using common panel unit root tests, Levin, Lin, and Chu (2002), Breitung (2002), the Im, Pesaran, and Shin (2003) and Fisher-type test by Maddala and Wu (1999). The panel unit root tests are reported in Table 2 for all countries.

Table 2. Panel Unit Root Test Results

Method	de	Pri
Levin, Lin & Chu		
Level	3.9435	0.5955
	(1.0000)	(0.7243)
First Difference	-6.0497	-3.9905
	(0.0000)	(0.0000)
Im, Pesaran and Shin W-stat		
Level	1.9867	-0.6574
	(0.9765)	(0.2555)
First Difference	-3.9172	-9.7685
	(0.0000)	(0.0000)
ADF - Fisher Chi-square		
Level	21.1703	35.9205
	(0.6287)	(0.2555)
First Difference	54.7897	133.156
	(0.0003)	(0.0000)
PP - Fisher Chi-square		
Level	4.7339	29.9774
	(1.0000)	(0.1855)
First Difference	58.2595	205.328
	(0.0001)	(0.0000)

The overall analysis of these tests indicates that the debt/GDP, pri are not stationary in levels and integrated of order one [I(1)].We detectedwhich tests should be used in panel data using the Hausman test.

Table 3: Correlated Random Effects - Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	1	1.0000
Period random	0.287571	1	0.5918
Cross-section and period random	0.337910	1	0.5610

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According the table 3, we should use random effect model, because of the null hypothesis accepted.After that, we divided two part of the period in the random effect model. Firstly, we aimed the weather or not structural break on the data. For this reason, we tested Chow test. The test indicated that there is a structural break in the 2007. We get the calculated-F 53.69 (prob:0.00000) of that certain time. We estimated the random effect model for two periods separately. The results are obtained by random effect model.

Table 5: ***The common effects of OLS results*** **(Dependent variable: Debt/GDP)**

(2002-2007)

Variable	Value	Standard Error	Probability
C	-1.186400	-1.884864	0.0636
DP	-0.852604	-1.804687**	0.0754
Random Effects (Cross)			
_AUS—C	0.190916		
_BEL—C	-2.095636		
_FIN—C	-0.853031		
_FRA—C	1.680399		
_GER—C	1.289002		
_GRE—C	0.561974		
_IRE—C	-0.163982		
_ITA—C	-0.938419		
_LUX—C	0.828785		
_NET—C	-0.025381		
_POR—C	1.823844		
_SPA—C	-2.298471		
Random Effects (Period)			
2002—C	0.558020		
2003—C	-0.067267		
2004—C	0.705066		
2005—C	0.402673		
2006—C	-0.850727		
2007—C	-0.747766		
R^2	0.04		
$R^{'2}$	0.03		
F	3.26	0.07	

(2008-2011)

C	1.191777	0.35137	0.0010
DP	-1.394329	0.378198*	0.0004
R^2 =0.32			
$R^{'2}$ =0.28			
F=3.81 (0.0096)			

(*)(**))Signify rejection of the unit root hypothesis at the 1%, 10% levels, respectively.

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In both of the series, primary surplus has the negative affect on the debt for two periods. But in the second period, the power of this affect is increased. In the first period, the coefficient of the primary surplus is statistically significance at 10%. But in the second term, the coefficient is statistically significant at 1%. In both of the period, the primarysurplus has negative impact on debt. The negative impact is increased after 2007.

4. CONCLUSION

The primary surplus represents the difference between public revenues and expenditures after excluding interest payments. In countries with high debt stock, negative primary surplus is increasing the risk of insolvency of the state. In case of primary surplus, state can pay a portion of the interest expense without debt after meeting public expenditure. Thus debt stock is decreasing. The reduction of the debt increases its sustainability. In our study, pre and post crisis periods are compared and relationship between primary surplus and financial sustainability in Eurozone is investigated.

We examined the primary surplus and debt relation in Eurozone explanations of the differences for after and before the 2008 financial crisis. We separate the periods as 2002-2007 and 2008-2012 periods. It is the first evidence that 2007 is break date in Eurozone. The Chow test indicated that would be a break in 2007. The presence of a structural break since 2007 shows that the relationship between primary surplus and debt stock has changed. In other words, the situation of financial sustainability has changed.

According to test results primary surplus has the negative effect on the debt for two periods. But in the second period, the power of this effect is increased. In the first period, the coefficient of the primary surplus is statistically significance at 10%. But in the second term, the coefficient is statistically significant at 1%. In both of the periods, the primary surplus has negative impact on debt. After 2007, the effect of primary surplus is more powerful than before.

When pre and post 2008 global financial crisis is examined, it is observed that, debt sustainability in post-crisis period got stronger compared to pre-crisis period in the member states of the European Monetary Union. In the pre-crisis period it is seen that relationship between primary surplus and debt stock has broken at 10 % significance level. In the post-crisis period, an increase in the primary surplus and debt reduction is observed. The possibility of reducing debt with the increase in primary surplus means increase in debt and financial sustainability.

The issues of the financial architecture of the European Monetary Union have been discussed. The primary issues discussed are the autonomous policy applications of many financial authorities as well as monetary authority, countries with heterogeneous economic structure joining monetary union are expected to have a homogenous structure, the absence of an effective supervision mechanism and monetary union not to be able to fight effectively with autonomous crisis special to countries. In post crisis period large-scale liquidity supply increased the countries'' debt stock. In our study, it is concluded that member countries of the European Monetary Union have stronger financial stability in the post crisis period. The main reasons for this are; emphasis not to damage the debt sustainability in fiscal policy implementation with understanding of the importance of financial structure within the monetary union and relatively ensuring financial harmonization among the countries in coping with the crisis.

5. REFERENCES

[1] Cipollini, Andrea and Iolanda Lo Cascio (2012), "Testing for public debt sustainability using a Time-Scale Decomposition analysis", https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=ICEEE5&paper_id=147

GLOBAL JOURNAL OF ADVANCED RESEARCH
(Scholarly Peer Review Publishing System)

[2] Izák, Vratislav (2009), "Primary Balance, Public Debt And Fiscal Variables In Postsocialist Members Of The European Union", Prague Economic Papers, 2.

[3] Landolfo, L. (2008), 'Assessing the Sustainability of Fiscal Policies: Empirical Evidence from the Euro Area and The United States', Journal of Applied Economics, Vol: XI, No: 2, pp. 305-326.

[4] Hauner, D., Leigh, D. and Kumar, S. M. (2007)."Ensuring Fiscal Sustainability in G-7 Countries", IMF Working Paper WP/07/187.

[5] Güvel, E.A. & Kalyoncu, H. (2006), "Bütçe Açıklarının Sürdürülebilirliği: Avrupa Birliği Üyesi Ülkeler Üzerine Bir Uygulama", İktisat, İşletme ve Finans Dergisi, Cilt: 21, Sayı: 247, 43-50.

[6] Croce, E. ve Juan-Ramon, V. H. (2003), "Assessing Fiscal Sustainability: A Cross-Country Comparision", IMF Working Paper WP/03/145.

[7] Uctum, M. &Wickens, M. (2000), 'Debt and Deficit Ceilings, and Sustainability of Fiscal Policies: An Intertemporal Analysis', Oxford Bulletin of Economic Research, Vol: 62, I: 2, pp. 197-222.

[8] Carlo Cottarelli (2011), "Challenges of Budgetaryand Financial Crisis in Europe", FiscalAffairsDepartment, International MonetaryFund, DepartmentDirector Speech, London School of EconomicsandPoliticalScience (LSE), United Kingdom.

[9] Baldi, Guido and KarstenStaehr (2013), "The European Debt Crisis and Fiscal Reaction Functions in Europe 2000-2012", German Institute for Economic Research, Discussion Papers.

[10] IMF (2007), Manual On Fiscal Transparency, Monetary Fund, Fiscal Affairs Department, Washington, D.C., 2007—2007 rev. ed., p.110.

[11] Stiglitz, Joseph E. (2010), "The Rederal Reserve's Relevance Test", Project Syndicate, http://www.project-syndicate.org/commentary/the-federal-reserve-s-relevance-test.

[12] SESRIC Reports (2011), "EuropeanDebtCrisisandImpacts on Developing", SR/GFC/11-9, 2011-2 Issue.

[13] Balassone F., J. Cunha, G. Langenus, B. Manzke, J. Pavot, D. Prammerand P. Tommasino (2009), "FiscalSustainabilityAndPolicyImplicationsForThe Euro Area", European Central Bank, WorkingPaper Series, No: 994.

[14] EuropeanCommission (2007), "PublicFinances in EMU — 2007", EuropeanEconomy, Directorate-General forEconomicand Financial Affairs, No: 3.

[15] Central Bank of Swaziland (2012), "Fiscal Sustainability: Lessons From The European UnionFor SADC", WorkingPaper, https://www.sadcbankers.org/Lists/News%20and%20Publications/Attachments/173/EU%20LESSON%20FOR%20SADC%20by%20Central%20Bank%20of%20Swziland.%20Final%20Paper%201.pdf.

[16] Romer, Christina D. (2012), "Fiscal Policy In The Crisis: Lessons And Policy Implications, University of California, Berkeley, http://elsa.berkeley.edu/~cromer/Lessons%20for%20Fiscal%20Policy.pdf.

GLOBAL JOURNAL OF ADVANCED RESEARCH
(Scholarly Peer Review Publishing System)

[17] Filipovski, Vladimir andTakiFiti (2013), "TheSustainabilityOfThePublicDebtInThe Post-CrisisPeriod", 9. International Asecu Conference On "SystemicEconomicCrisis: CurrentIssuesAndPerspectives", 30-31st of May, 2013.

[18] Grauwe, Paul De and YuemeiJi (2012), "Self-Fulfilling Crises in the Eurozone: An Empirical Test", Centre for European Policy Studies, Working Documents, No. 366.

[19] Paloviita, Maritta (2012), "Real time uncertainty in fiscal planning and debt accumulation in the euro area", Monetary Policy and Research, Bank of Finland, Discussion Papers, No:35.

[20] Staehr, Karsten (2007), "Fiscal Policies and Business Cycles in an Enlarged Euro Area", http://www.aei-ecsa.de/dokumente/tagung_eurozone_staehr.pdf.

[21] Wilcox, David W. (1989), "The Sustainability of Government Deficits: Implications of the Present- Value Borrowing Constraint", Journal of Money, Credit, and Banking 21 pp. 291-306.

[22] Hamilton, James D. And M. Flavin (1986), "On the limitations of goverment borrowing: A framework for Empirical testing", American Economic Review 76(4), 808-19, September.