

4-26-2012

Government Debt Crisis in Eurozone Case Studies: Greece and Italy What can Kosovo learn from the Eurozone crisis?

Blendi Hasaj

Follow this and additional works at: <http://scholarworks.rit.edu/theses>

Recommended Citation

Hasaj, Blendi, "Government Debt Crisis in Eurozone Case Studies: Greece and Italy What can Kosovo learn from the Eurozone crisis?" (2012). Thesis. Rochester Institute of Technology. Accessed from

This Senior Project is brought to you for free and open access by the Thesis/Dissertation Collections at RIT Scholar Works. It has been accepted for inclusion in Theses by an authorized administrator of RIT Scholar Works. For more information, please contact ritscholarworks@rit.edu.



Submitted to AUK as part of requirement for graduation

Government Debt Crisis in Eurozone
Case Studies: Greece and Italy
What can Kosovo learn from the Eurozone crisis?

A Honors Society Project
Presented to
The Academic Faculty

By
Blendi Hasaj

Supervisor
Venera Demukaj PhD

In Partial Fulfillment
of the Requirements for Membership in the
Honors Society of the American University in Kosovo

26.04.2012

Contents

Abstract.....	5
Problem Statement.....	5
Literature Review	
Public Debt.....	6
Insolvency vs. Illiquidity	8
Debt Crisis Theories, Self-fulfilling Crisis and Emergency Loans.....	8
Maastricht Treaty-Criteria.....	10
Case Studies: Greece and Italy.....	11
Greece Crisis.....	12
Italy Crisis.....	15
European Central Bank (ECB).....	16
International Monetary Fund (IMF).....	17
Kosovo.....	18
Methodology	19
Qualitative Research.....	19
Quantitative Research: OLS Model and Binary Logistic Model.....	20
Economic Models.....	20
The Analysis of the Results	23
EU Crisis and the issues related to the Fiscal Union and Maastricht Criteria and involvement of the IMF.....	26
Fiscal Union.....	27
IMF.....	28
Maastricht Criteria.....	28
Eurozone Crisis: What Can Be Learned?	30
References.....	35
Appendices.....	38

Acknowledgements

I would like to express my honest gratitude to Professor Venera Demukaj, for her continuous support in this thesis. She has been willing to provide comments, suggestions, and support at any time I was facing challenges during these 9 months of my research. I would like to thank also Professor Hajdar Korbi and Professor Valentin Toçi for their helpful advices on fiscal policy field and generating econometric models, respectively.

Last but not least, many thanks go to my family for their unconditional love, support, and care for all these years. Each success of mine is a dream being realized for them.

ABSTRACT

The ongoing government debt crisis, in some of the biggest Eurozone countries has become a great concern for the European societies. The inability of the governments to cover their expenditures over the last years has resulted into high public debts, followed by a set of economic problems such as recession, unemployment and growth issues, negative balance of payments and fewer investments. Some of the most affected countries of this crisis are Greece, Italy, Portugal, Ireland, and Spain. In this project, I analyze the factors that cause an increase of debt to GDP ratio in a Eurozone country, by estimating a GLS model with random effects, and present some of the factors that cause government crisis in Eurozone countries by estimating a Logistic Binary model. Results suggest that government ineffectiveness, public spending and crisis are the main variables impacting indebtedness of countries; and rule of law and domestic credit to private sector as factors that are causing crisis in Eurozone.

PROBLEM STATEMENT

This thesis explores recent government crisis in the Eurozone with a particular focus on Italy and Greece. Specifically, this project first investigates the recent government debt crisis from its origin (2009) by focusing on the fiscal and monetary policy of the two countries affected from the crisis notably, Greece and Italy. This explains how the national fiscal policy goals of these governments were interacting with the long term goals of the common monetary policy of the euro area members. Second, the roles and response actions of European Central Bank (EBC) and International Monetary Fund (IMF) toward the growing government debt of these countries are examined. To understand empirically the factors that have affected the debt level in a Eurozone country and impact of the certain variables causing, the crisis two econometric models are developed. Lastly, Kosovo as a newborn, euroized country started issuing government bonds in 2011; and there is much to be learned from the euro area financial crisis in terms of accumulation of long-term debt. Hence, the last section this thesis examines the actual economic situation of Kosovo and perceives whether it has premises to encounter issues related to public debt such as those in Greece and Italy, in the long term.

The two countries investigated in this project, Italy and Greece, were chosen because of many differences and similarities that they have in their government crisis evolution. Italy is one of biggest industrialized economies in the world whereas Greece is mainly a service economy. Also, Greece's public debt mainly consists of external debt, whereas Italy's public debt is mainly internal debt. Both of these countries had a debt to GDP level over 90% from the 1990s.¹

¹ Lane, P. R. (2012). *The European Sovereign Debt Crisis*. .: Journal of Economic Perspectives

The financial markets of both countries liberalized later (during the 1990s) as compared to other big European countries, and both of them opened their banking sector to foreign operators during the 2000s. Prior to that, banking system target would be similar in both countries, focused on crediting private households. Both Italy's and Greek's banking system were dependent on domestic deposits and were low leveraged.

LITERATURE REVIEW

Public Debt

In public finance, when government expenditures exceed revenues a budget deficit exists. The size of the budget deficit on a given year depends on the movements in the economy. If in a country there is high unemployment, economy is not industrialized, and thus large investments are made on capital projects, then the budget imbalance tends to be higher. The accumulated budget deficits through years make up the public debt. Under these circumstances, the government has to borrow money, either from external or internal credit markets to cover for the expenditures.

According to Hyman (2010) depending on how demand and supply react, a government decision to borrow money from internal credit markets, such as deciding to issue bonds to private banks or individuals, will affect the country's economic growth indirectly through its effect on national savings, interest rates, and investments. The two most prevailing views on the economic effects of government borrowing from the internal market are Traditional view and Classical Economists view (the Ricardian Equivalence). According to the traditional view, *ceteris paribus*, an increased demand for loanable funds by government will increase the interest in the credit markets under the assumption that this increased demand for loanable funds will not be accompanied by increased savings from people. And if interest rates increase, businesses will find it more expensive to invest, so less job opportunities and less consumption; altogether negatively effecting the economic growth of the country.² Even though there is little empirical evidence on proving this relationship, in a panel dataset analysis of 60 countries Aisen and Hauner (2008) find a positive relationship between budget deficit and interest rates of about 26 basis points for 1% of GDP.³ Sachs(1986) discusses that when government starts servicing debt, resources will be shifted from the private sector to the public sector.⁴ In the same vein, Panniza

² See David N. Hyman (2010), "Public Finance – A Contemporary Application of Theory to Policy" pages 480-481.

³ Aisen, A. and Hauner, D. *Budget Deficits and Interest Rates: A Fresh Perspective. IMF Working Paper*, 2008, page 5.

⁴ Sachs, J. (1986). *Managing the LDC Debt Crisis*. : Harvard University .

(2008) states that government borrowing from domestic markets will have the crowding out effect in the market, and banking sector will tend to be less stable because of its holdings of the bonds.⁵

Classical economists state that, *ceteris paribus*, an increase in demand for loanable funds by government will not affect interest rates, investments and the economic growth of the country because the amount of loanable funds borrowed by government will be offset by the same amount from the increased savings of taxpayers. This view also called Ricardian Equivalence, named after the classical economist David Ricardo, argues that private spending will be affected the same as if government increases taxes or borrows money. However, if government public debt is mainly composed of internal debt then there are two positive outcomes, first government pays interest to its citizens so the money will remain in the domestic market and second government will find it easier to collect funds in times of crisis, such as by taxing bondholders.⁶

The rationale for having high external debt as a part of government public debt is mainly driven from easiness of accessibility of the low interest loans. But the impact of external debt on the economic growth of the country is questioned. Cunningham (1993) in his empirical study on 16 highly indebted countries, for the period 1971 - 1979, finds out that there is a negative impact of debt on growth, as it reduces labor and capital productivity.⁷ But on the other hand Afxentiou & Serletis (1999) and later Patillo(2002) come to a result that there is no causal link between GDP growth and servicing external debt.⁸ Most doubts are as a result of debt overhang, which Krugman (1988) defines a situation where a country has a large inherited debt that crediting entities have doubts on country's commitment and capacity to repay it.⁹ In other words, it presents the situation where the expected present value of potential earnings is less than the country's debt. This increases the uncertainty and unwillingness of crediting institutions to provide loans to these countries, but at the same they must think on protecting the loans that they have issued earlier to these countries; valuing the costs of financing or forgiving the debt.

⁵ Panizza, U. (2008). *Domestic and External Public Debt in Developing Countries*, page 14.

⁶ See David N. Hyman (2010), "*Public Finance – A Contemporary Application of Theory to Policy*" pages 480-481.

⁷ Quoted in Efthimiadis, T., & Tsintzos, P. (2011). *The Internal-External Debt Ratio and Economic Growth*. : Journal of Policy Modeling

⁸ Quoted in Efthimiadis, T., & Tsintzos, P. (2011). *The Internal-External Debt Ratio and Economic Growth*. : Journal of Policy Modeling

⁹ Krugman, P. R. (1988). *Financing vs. forgiving a debt overhang*. Cambridge, MA: National Bureau of Economic Research.

Insolvency vs. Illiquidity

Prior to evaluating the economic situation of the Eurozone states, some of which are facing substantial problems, theory was consulted and carefully reviewed. That being said, the first step on dealing with debt crisis topic will be to analyze whether a country is having solvency or liquidity problems. Krugman (1988) and Dullien and Schwarzer (2011) state that a country can be categorized as insolvent if it is not being able to pay its debt in medium or long term, even if it makes changes on its fiscal, tax, and spending policies.¹⁰ The ability of changing one of these variables, such as taxes, is limited considering that they are positively or negatively correlated to other economic variables. A government cannot increase taxes above a certain level because that would decrease investments or economic activity, and negatively affect the whole economy; thus, worsening the situation. Also, even if taxes increase a rational government cannot use the whole amount generated on serving debt considering that it has to finance other activities, such as providing public goods or health care services to the poor, from collected taxes. On the other side, being an illiquid state means having some temporary problems on paying actual obligations, but in the longer term, debt will be paid regardless of the changes made on specific policies.

Debt Crisis Theories, Self-fulfilling Crisis and Emergency Loans

Economists differ in their opinions in explaining government debt crisis. On one side, many economists argue that government debt crisis are often preceded or accompanied by banking crisis, being those domestic or ones originating from international financial crisis Reinhart and Rogoff (2010); Arellano and Kocherlakota (2008).¹¹ This is related to government intervention on rescuing banking sector by transferring monetary resources, which increases its fiscal expenses, and the chances of that government failing to meet deadlines on servicing debt, even defaulting. The way this happens is explained by Alphan ery (2012) who states that there is a strong link between the ongoing government debt crisis and the financial sector, because of its holdings of bonds of the underperforming countries. This is consist of a chain of effects in both directions: first the worsening situation of government debt crisis affects the financial sector, weakens it, because of the government bond holdings, and second, a weakened financial sector

¹⁰ Dullien, D. S., & Schwarzer, S. D. (2011). Dealing with debt crisis in the Eurozone. http://www.swpberlin.org/fileadmin/contents/products/research_papers/2011_RP11_Dullien_swd_ks.pdf and Krugman, P. R. (1988). *Financing vs. forgiving a debt overhang*. Cambridge, MA: National Bureau of Economic Research.

¹¹ Reinhart, C. M., & Rogoff, K. S. (2010). *From financial crash to debt crisis*. Cambridge, Mass.: National Bureau of Economic Research. and

has less ability to provide loans in the market. As a result economic activity and tax revenues may go down, and public debt level is negatively affected.¹²

On the other side, several economists have been developing self-fulfilling crisis models which tend to present and empirically explain government debt crisis. According to self-fulfilling crisis models, the expectations of the market decide whether a country enters into a crisis or not. If all the participants in the market expect that a country will manage to go over the economic problems it has, by implementing the right economic policies, crisis will be avoided. One scenario of this crises to happen is that if high risk is anticipated, mainly because of increasing government debt and deficit, depositors start withdrawing their money from banking institutions, and crediting entities increase interest rates for refinancing indebted countries, which causes crisis Obstfeld (1995); Cole and Kehoe (1998).¹³ Here we have to take into account that the banking industry is more specific than other industries and the contagion effect will be unavoidable. These models best apply to European Monetary Union members that are experiencing large budget deficits, such as: Greece, Italy, Spain, Portugal and Ireland.

As presented by Dullien and Schwarzer (2011), one of the best practical cases of changing market expectations is that of Greece. In 2010, the annual interest rate that Greece had to pay for short term borrowing was about 20 percent, an increase in 10 percentage points in a short period of time. If all the debts of Greece would have been taken at this rate then we would have Greece increasing its debt service from 6 to 18% of GDP, and at the same time budget deficit would surge from 8%, as estimated in 2010, to nearly 20% of GDP; even if state neither does increase its spending nor does any tax reductions. In that scenario, more than 50% of tax revenues would have to be directed on paying interest and triple effort on maintain the deficit at the level of 3% of GDP in order to achieve Maastricht criteria. For countries such as Spain, Portugal, Ireland and especially Italy an increase of interest rates at 15 would increase their deficit up to 20%, and thus deepen the crisis. Hence, these countries are vulnerable to having self-fulfilling crisis. But in these cases emergency loans would be highly important, if provided on time by institutions such as IMF or EBC and if they cost less than borrowing from private market. This would increase the investors' expectations on the capability of state to service its debt and also impact a decrease on borrowing rates. On 2011, the Eurozone summit took the decision of lowering

¹² Alphandéry, E. (2012). *Euro Crisis*.: Foundation Robert Schuman.

¹³ Obstfeld, M. (1995). *Models of currency crises with self-fulfilling features*. Cambridge, MA: National Bureau of Economic Research. and Cole, H. L., & Kehoe, T. J. (1998). *Self-fulfilling debt crises* (. ed.). Minneapolis: Federal Reserve Bank of Minneapolis, Research Dept..

interest rates for Greece, Ireland and Portugal which now would be a rate close of that necessary of financing European Financial Stability Facility (EFSF) costs compared to the past where the rate was around 6%. But, as previously noted, emergency loans should be given before the market expectations go downward, and there should be caution whether the loan is being provided to a state having liquidity or solvency problems.¹⁴

MAASTRICHT TREATY-CRITERIA

Maastricht Treaty was signed in 1992. In 1993, the treaty would be enforced and European Union (EU) would be established, which would lead to creation of Euro as the single currency of Eurozone countries. The rationale behind Maastricht Treaty is to have income convergence, prosperity and economic growth of EU countries and assist developing countries to converge or catch-up with developed ones, but also in a way to impose some fiscal rules, which lacked efficient implementation mechanisms. As a result of this treaty, the Maastricht Criteria were established, with the goal of ensuring free movement of capital, goods and services. It also explicitly categorizes and defines the requirements to be met in order to become a member of EU. The Treaty imposes five main criteria that EU member have to meet in order to become part of Economic and Monetary Union and use euro as their currency (Eurozone):

- sustainable price level by keeping an inflation rate of no more than 1.5 percentage points above the average of the three EU countries which have the lowest inflation rate.
- nominal long term interest rates not exceeding the average of the three countries with the lowest inflation rates by more than 2 percentage points.
- joining Exchange Rate Mechanism (ERM) and having not experienced a devaluation two years prior to entering into the union
- annual government deficit not exceeding more than 3% of GDP
- public debt level not exceeding 60% of GDP¹⁵

But the Maastricht criteria effectiveness and success on development of EU economies, achieving convergence and stability are questioned considering the performance of these countries and their economic growth.

¹⁴ Dullien, D. S., & Schwarzer, S. D. (2011). Dealing with debt crisis in the Eurozone. http://www.swpberlin.org/fileadmin/contents/products/research_papers/2011_RP11_Dullien_swd_ks.pdf

¹⁵ The Maastricht Treaty (1992). *Provisions amending the treaty establishing the European economic community with a view to establishing the European community*. Maastricht.

Grauwe (2006) states that, before a country chooses to join the monetary union, it should first analyze whether the benefits of joining exceed the costs. First, the macroeconomic shocks that a member country of the monetary union may experience, should be highly correlated to shocks experienced in other member countries of the union; hence having symmetry. Second, flexibility in labor markets of EU countries should exist in the sense that when shocks occur in the union, adjustments can be made. Also it should have trade integration to the point that it benefits from using the same currency as other members of union. If these criteria do not hold, then monetary union will be less sustainable.¹⁶

Bukowski (2006) argues that the reason why the convergence speed is still low is related to countries' efforts on meeting Maastricht criteria, such as controlling wages and price level, reducing deficit and meeting the threshold of 60% debt to GDP, even though taxes should be reduced and expenses, too.¹⁷ Buti and Sapir (2010) add that in long term these countries will lead toward convergence, because of benefits they will gain from the union in the future such as having price stability, low rates of interest rates and inflation, fiscal rule, more investments and removing the exchange rate risks.¹⁸

CASE STUDIES: GREECE AND ITALY

In 2009, the Greece government revealed publicly that they have been misreporting data related to their deficit, and admitted that they are in recession. This was a shock for the financial markets and the main threats were related to the spread of the crisis, through the contagion effect-as explained earlier by self-fulfilling crisis models- into other countries; and the risk of bankruptcy of Greece. The debt/GDP level in 2011 was 170.6% and this would increase the chances of break-up of Euro. The increasing public debt phenomenon is also present in other countries like Italy with 120.5% debt/GDP in 2011, Portugal 108.1%, Ireland 106.4% and Spain 69.3%.¹⁹ These countries have not been able to generate enough revenues to cover their expenditures and get out of recession yet, despite the fact of getting several rescue packages from European Union or introducing austerity measures; besides Ireland to some extent in 2012.

¹⁶ Grauwe, P. D. (2006). *What Have We Learnt about Monetary Integration since the Maastricht Treaty?* Blackwell Publishing Ltd.

¹⁷ Bukowski, S. I. (2006). *The Maastricht Convergence Criteria and Economic Growth in the EMU.*

¹⁸ Quoted in Marelli, E., & Signorelli, M. (2010). *Institutional, nominal and real convergence in Europe.* Banks and Bank Systems

¹⁹ Google Public Data: Eurostat 2011

Two other ways of crisis spread in euro area were mainly through wealth effects on demand, and most importantly through trade activities.²⁰ As usual, when a country is in recession the GDP drops and unemployment increases. As seen in figure 1, the GDP of these countries dropped drastically especially between 2009 and 2010, mainly because of being into recession, taking immediate austerity measures and as a result of a decrease on trade activities with other countries. When compared to other countries, Greece has not been able to make recovering progress even on 2011.

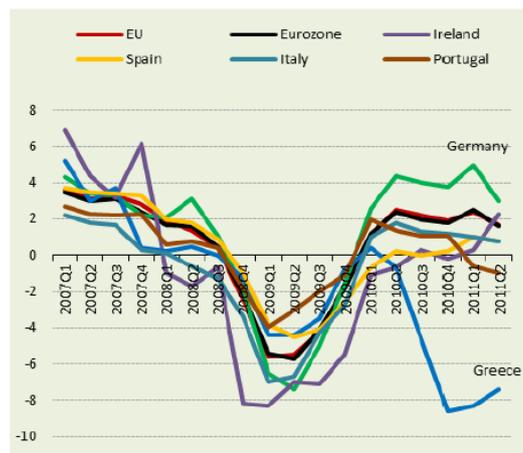


Figure 1. Year-on-Year change of GDP²¹

The inability of finding an immediate effective response leads to the crisis spread and an increase in the unemployment levels. From June 2009 to June 2012 unemployment rate has increased for 15.1% in Greece, 5 % in Portugal, 5% in Ireland, 2.9% in Italy, and 6.9% in Spain (see figure 2).

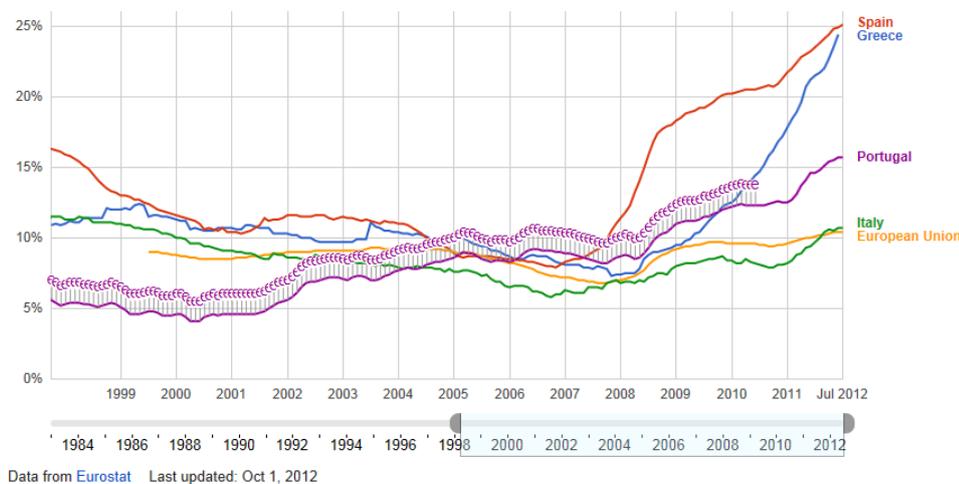


Figure 2. Unemployment rate, Seasonally adjusted data – Eurostat, author

Greece Crisis

In 2001, Greece decided to join the Euro area and became the 12th state of the Eurozone. The Greece economy largely relies on service sector and less in manufacturing and agriculture. In Greece, up to the 1990s, the financial system was highly regulated, bank oriented and state

²⁰ SESRIC, (January-June 2011). The Eurozone Debt Crisis: A Second Wave of the Global Crisis. *In the Seric Reports on the global Financial Crisis*

²¹ SESRIC, (January-June 2011). The Eurozone Debt Crisis: A Second Wave of the Global Crisis. *In the Seric Reports on the global Financial Crisis*

owned. During the 90s, a reforming and deregulating era of financial system, which was mainly driven by European Union, would start. The role of the state in this industry would lower significantly, most of the banks would be privatized, the financial system focus would transform from bank-oriented to market-oriented. This would lead to opening of the market for foreign operators, market share of which in 2006 would be around 37% in 2006. ²² The decision of Greece to enter European Union and adopt Euro as its currency was driven from three main economic reasons. First, Greece being a country that continually had high inflation, would now have the chance to stabilize the price level, as seen in figure 3, because of the centralized monetary policy of Eurozone, whose main goal is price stability. Second, the Eurozone members cannot make any more competitive devaluation, and Greece would benefit through lower nominal interest rates because of the eliminated exchange fluctuations. Third, considering that inflation could now be tackled, money market would be more secure and incentives for borrowing and lending in long term periods would increase; hence, having a direct positive impact on investments.²³ As seen in the graph below by entering into the Eurozone, Greece managed to stabilize its inflation rate. While the inflation rate average in 2001- 2011 was 3.40%, in the period 1980- 2000 the inflation rate average was 14.72 %. But its average inflation rate is still above the European Union average inflation rate.

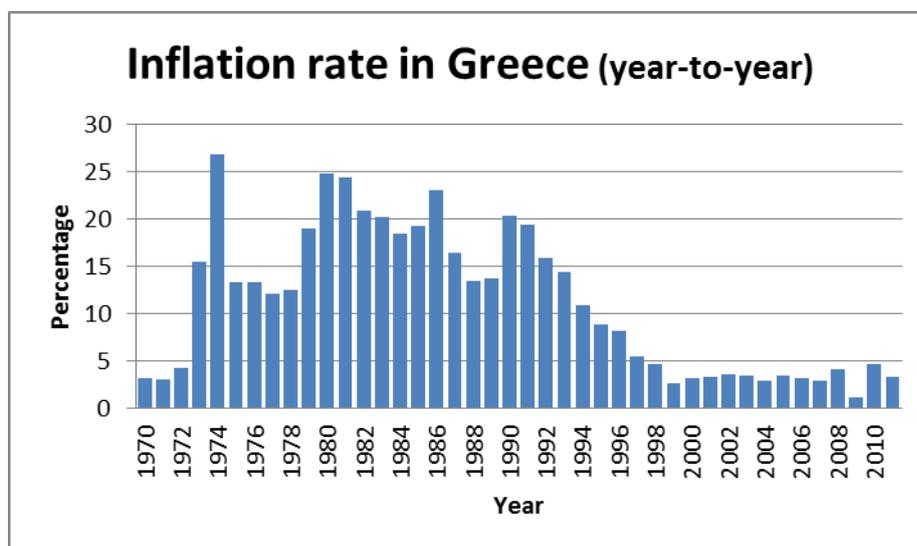


Figure 3. Inflation rate year-to-year – Author,World Bank Data

Greece could initiate development efforts through proper national fiscal policies considering that monetary policy was centralized. But, as mentioned earlier in the report considering that Greece’s economy largely lies on service sector, the main source of economic activities was coming from public overspending. During these years, the government spending was mainly allocated on investments such as infrastructure, increasing wages, and preparing for Olympic

²² Quaglia, L., & Pagoulatos, G. (2010). *Italy and Greece: Financial crisis as sovereign debt crisis*

²³ Gibson H., Hall S. & Tavlás G. (2011). The Greek Financial Crisis: growing imbalances and sovereign debt. Working paper nr. 2011124. Bank of Greece-Eurosystem.

Games. With the entrance of Greece in EU/Eurozone there was an increase in domestic demand for loans, due to lower interest rates; considering that inflation and exchange rate movements would reduce. Government was approaching an expansionary fiscal policy, resulting in higher deficit than in previous years. Also recapitalizing internal banks, which were affected from financial crisis in 2008, was a major government expense. At this stage the only way for government to finance the increasing public deficit was external borrowing, which reached 80% of total public debt in 2009, whereby the yearly net external borrowing in period 2000-2008 was about 10%.²⁴

Greece is going through recession dealing with unemployment which is double the Eurozone average unemployment, bankruptcy of businesses and increasing number of people requiring social assistance. Moreover, as presented in figure 4, the large and increasing current account deficit, -9.81% of GDP in 2011, shows the resulting loss in competitiveness of Greece and automatically infers the rising foreign obligations and increase in the interest deficit.



Figure 4. Current Account Balance of Greece (% of GDP), author – Eurostat

Also, problems related to poor budgeting are evident in the Greece government. There is lack of transparency, considerable deviations on meeting targets and a big concern in the inability of General Accounting Office to monitor the budget spending because of not having access in local fiscal audit offices or other government institutions.²⁵

²⁴ See Athanassiou, E. (2009). Fiscal Policy and the Recession: the Case of Greece .Paper No 103. And

²⁵ Kaplanoglou G., Rapanos V. (2011), *The Greek Fiscal Crisis and the Role of Fiscal Governance*. LSE, GreeSE Paper No 48.

Italy Crisis

Italy was one of the first countries to adopt Euro as its own official currency in 2002. Italy has one of the biggest economies in the world and one of the biggest markets of government bonds. The country was also affected from the recent government crisis, starting in 2008, but to a lesser extent compared to Greece. As well, Italy is one of the most industrialized countries in Europe and the world. Some of the reasons why its economy was dazed for a while were because of the inefficient fiscal policies, problems inherited from the last financial crisis such unemployment and contraction of investments, recapitalization of banks, and inability of other countries to import from Italy. The current account balance of Italy in 2011, as seen in figure 5, was -3.26% of GDP which shows a tendency for improvement based on the austerity measures that have been taken on the side of the Italy's government. In Italy, up to the 1990s, the financial system generally consisted of banks having huge role as financial intermediaries, thus a bank-oriented system (Allen and Gale, 2000). There was a limited presence of foreign banks in the market, 4% (total assets) in 1992, largely as a result of imposed regulations and the preferences of Italian population for internal banks.²⁶ Dependence on traditional lending activities to businesses and households was a core function of Italian banks, as half of the total annual income of the banks came from the net interest. Then in 2000s, seeing the contemporary developments in other financial markets, entering into European Union and facing critics from citizens, the banking system of Italy would open. And in short period of time the presence of foreign banks and other financial institutions would be same as in other developed countries, with a market share of 19% in 2007, compared to Germany, France and Spain in which the average market share of foreign banks in 2006 was 10.5%.²⁷ Also an increase on securities trading and subsidiaries usage occurred. At the beginning of the crisis Italy's government reacted quickly by changing its fiscal policy approach in order to generate more revenues, such as it introduced the tax on primary residence (IMU), it increased the VAT, fuel excise duties and other tariffs that negatively affected the Italian households whose purchasing power decreases, as such consumption either; also manifested with a lower propensity to save.²⁸ In 2011, Italy contrary to Greece would only request from IMF advice related to fiscal policies and structural reforms; so to prioritize the surveillance work.²⁹

²⁶ Magri, S., Mori, A., & Rossi, P. (2004). *The entry and the activity level of foreign banks in Italy: An analysis of the determinants*. Italy: ..

²⁷ Quaglia, L., & Pagoulatos, G. (2010). *Italy and Greece: Financial crisis as sovereign debt crisis*

²⁸ Borghi Elisa (2010) *Italy and Greece: Financial crisis as sovereign debt crisis*

²⁹ Press Release: Statement by IMF Managing Director Christine Lagarde on the G-20 Cannes Summit." N.p., 4 Nov. 2011. Web.

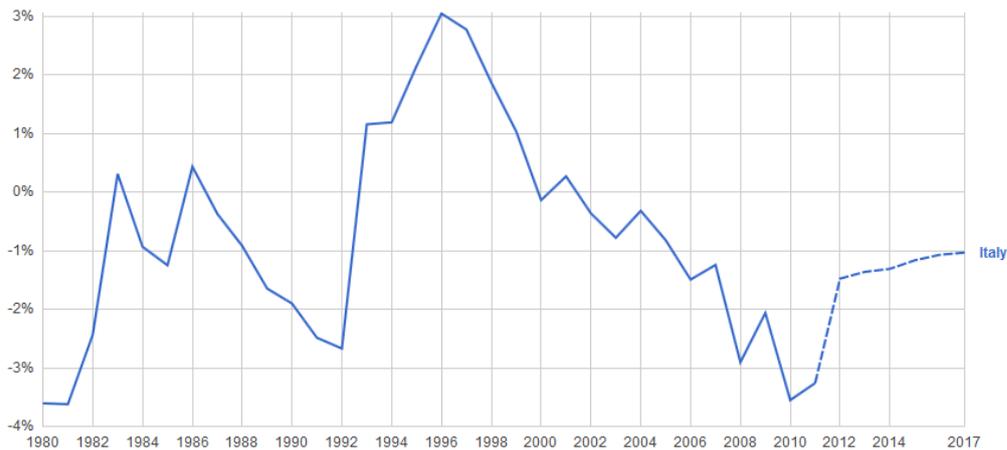


Figure 5. Current Account Balance of Italy (% of GDP), author – Eurostat

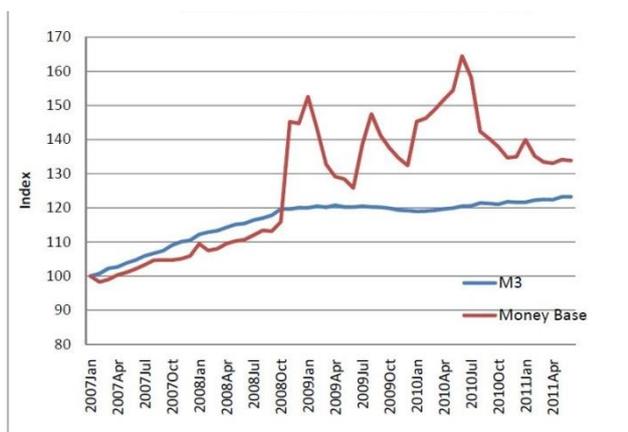
EUROPEAN CENTRAL BANK (ECB)

The European Central Bank (ECB) is the main euro currency institution. The primary objective of ECB is price stability in European Union countries. Further, it is responsible based on Article 105.2 of the Treaty establishing the European Community, to define and implement the monetary policy in the euro area, perform foreign exchange operations, hold and manage the foreign reserves of the euro area member countries, and carries out the payment systems.³⁰ Also ECB is focused on taking series of measures on monetary field mainly related to reducing volatility on financial markets and finding solutions related to liquidity problems.³¹ But, the role of ECB in the recent government crisis in Eurozone is debatable among economists. According to Valiante (2011), in the recent government crisis, the ECB has not been acting as an institution which should support countries which are not being able to have control of monetary policies due to the price stability target. If ECB would be involved from the beginning on buying government bonds of the countries which were having debt issues, through secondary market, liquidity the problems could be inhibited and not turn into solvency crises. Instead, governments and political institutions have been continually injecting money through bail-out programs even though there is no tendency on stabilizing the markets. To confirm that ECB was passive in the case of the government debt crisis is important to see the ECB long term monetary approach on markets compared to Federal Reserve and Bank of England, table presented in Appendix I. In the beginning of 2011, the ECB had the largest Gold reserves in the world, €363,250 bn compared to Federal Reserves (FED) which had €261,480 bn and Bank of England (BoE)

³⁰ Tasks." ECB:. European Central Bank, n.d. Web
<<http://www.ecb.int/ecb/orga/tasks/html/index.en.html>>.

³¹ SESRIC, (January-June 2011). The Eurozone Debt Crisis: A Second Wave of the Global Crisis. *In the Seric Reports on the global Financial Crisis*

€9,975 bn. This suggests that the ECB has not been very active in the market; as such confirming its passive standing related to the ongoing government debt crisis. Also, securities held in portfolio as a percentage of total assets were 25.76 % in ECB compared to 80.89 % in FED and 91.03 in BoE; this again depicts the ECB's low activity in buying government securities.³² Grauwe (2011) argues that ECB's main arguments related to its passive role, as lender of the last resort in the government bond market, in the during the Eurozone crisis are related to inflation issues that might raise as a result of that engagement considering that money stock would increase, and also the possibilities of ECB losing money by buying bonds of underperforming countries. Related to first argument, ECB's reaction to save banking sector by providing funds to banks increased only the money base and did not have an impact on money stock (M3), as seen in figure 6, because banks used this money not to extend the crediting to non-banking financial institution but to increase their liquidity.



Source: ECB, Statistical Data Warehouse.

Also if ECB has doubts that its activity of buying government bonds, will cause

inflation, because monetary base may increase, it can at the same time be active in selling other assets, in which case the size of assets wouldn't increase; only the ECB's assets composition would change. In this case, there would not be risks related to an increase in inflation.³⁴

Figure 6. Money base and M3 in the Eurozone (2007=100)³³

INTERNATIONAL MONETARY FUND (IMF)

The International Monetary Fund (IMF) organization was founded in 1945 and currently has 188 member countries. Its work is mainly related to initiating monetary cooperation between countries and ensuring financial stability, and acts as the lender of last resort also. To achieve this, it plays three major roles. First, it monitors the implementation of economic policies, scope of the financial issues, and the price stability in the markets of its member countries, under the platform called surveillance. This includes the preparation of the annual Article IV Staff Report, for all country members, which presents the main discussing issues of the executive

³² Valiante, D. (2011). *The Eurozone debt crisis from its origins to a way forward*. Brussels: Centre for European Policy Studies.

³³ Grauwe, P. d. (2011). *Only a more active ECB can solve the euro crisis*. Brussels: Centre for European Policy Studies.

³⁴ Grauwe, P. d. (2011). *Only a more active ECB can solve the euro crisis*. Brussels: Centre for European Policy Studies.

board of IMF on the latest developments of policies and structural changes that member countries should undertake. Second, it issues loans to member countries that have financial troubles, so that they can stabilize economically, or just to send a signal in the markets that those member countries have imposed sustainable policies; so that investors feel safer. It does that by using different frameworks, such as Extended Fund Facility (EFF) and Stand-By Arrangement (SBA). Third, it provides technical assistance and training to member countries by sending its expertise to them; mainly assisting in monetary and tax policy formulation, and more.

Valiante (2011) states that the increasing role of the IMF by offering loans to countries going through debt crisis, such as Greece in our case, is debatable. In this setting the instruments that IMF, as a monetary institution, has serve to solve the short term liquidity problems and not solvency issues, as we elaborated in the previous sections.³⁵ IMF on its report on Argentina crisis of 2001, concludes that were debt dynamics in a country are vulnerable, IMF should not provide funding because those funds will be used only to extend the debt reconstructing process, hence worsen the situation³⁶. This means that the IMF loans given to Greece and Italy will only relief them for a short term period and have no effect in solving the situation; this will only increase the amount of debt. As such, other specific mechanism should be used to tackle the crisis facilitate

KOSOVO

Kosovo is small developing economy. In 2002, Kosovo adopted euro as its national currency (unilateral euroization) in order to avoid the creation of its own national currency that most probably would be followed with uncontrolled inflation and monetary instability during the years. The current financial sector mainly consists of international institutions. Considering that Kosovo's Central Bank functions are limited, such as the inability to act as the lender of the last resort, the risk that Kosovo would print more money to cover its deficit is eliminated and the macroeconomic stability is more realistic.

Kosovo is small developing economy. In 2002, Kosovo adopted euro as its national currency (unilateral euroization) in order to avoid the creation of its own national currency that most probably would be followed with uncontrolled inflation and monetary instability during the years. The current financial sector mainly consists of international institutions. Considering that

³⁵ Valiante, Diego. (2011). *The Eurozone Debt Crisis: From its origins to a way forward*. Paper No. 251, CEPS, August.

³⁶Policy Development and Review Department (2003) *Lessons from the Crisis in Argentina*. (2003). International Monetary Fund, IMF, read page 72.

Kosovo's Central Bank functions are limited, such as the inability to act as the lender of the last resort, the risk that Kosovo would print more money to cover its deficit is eliminated and the macroeconomic stability is more realistic. In 2011, as seen from figure 7, Kosovo's current account deficit as a percentage of GDP was -23.8%, which

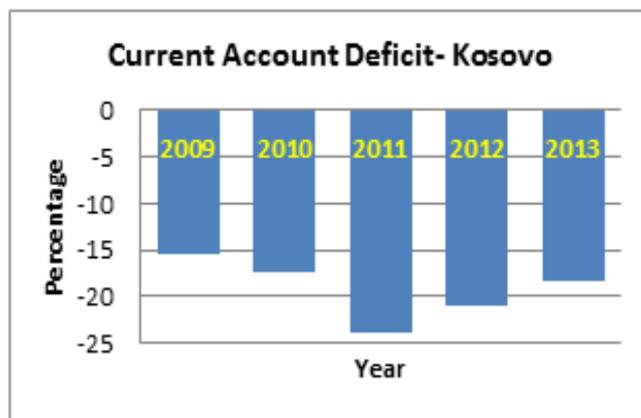


Figure7. Current Account Deficit, KSO

infers that Kosovo's domestic producers are being unable to cover the market demand and the country is highly dependent on imports. Government projections for 2012 and 2013 entail a significant decrease on the current account deficit, even though no supporting arguments are given. The direct effects of the ongoing Eurozone debt crisis in Kosovo's economy have shown to be little, mainly because of its limited integration on the financial markets. Currently, Kosovo's government is having an expansionary fiscal policy approach by investing in infrastructure, energy and increasing wages in public sector. With tax revenues as the main income, Kosovo's government is seeking for additional sources to cover its deficit, which remains low at 3.2% of GDP in 2012 (projected), by privatizing its public assets and issuing short term government bonds which will be sold to domestic financial institutions.³⁷

Starting in January 2012, Ministry of Finance has been issuing short term government bonds through organized auctions, on monthly basis. Kosovo's government benefits by having more cash available for its short term obligations and investors, on the other side, by positioning their free assets into safe investments; risk free investment. At the moment, given the Kosovo's small economy there are no serious "external" risks related to investing on government bonds. But we must investigate whether the time to maturity of these government bonds will be extended, which then would infer the incentive of government to cover its deficit.

METHODOLOGY

For the topic investigated in this research project both qualitative and quantitative research were conducted, as explained into more details in the following sections:

Qualitative Research

Interviews conducted with Mr. Jose Sulemane, the IMF representative in Kosovo and Mr.

Besnik Pula, sociology researcher in Princeton University, both experts in the topic investigated,

³⁷ International Monetary Fund. (2011). *Republic of kosovo: Staff report for the first assessment under the staff-monitoring program.*

comprise the primary source of the qualitative research. Interview with Mr. Sulemane incorporates questions regarding the mechanisms that IMF uses to analyze the economic situation of a country prior to helping it in monetary terms, instruments to technically support a country, and questions regarding the future of Eurozone and the Kosovo's possible issues related to debt management. Mr. Pula is the author of the study on "Kosovo and the Balkans in the European Financial and Economic Crisis" and the interview with him consisted of questions on channels of crisis transmission in different states, and the (un)ambiguous role of IMF on helping the countries with high debt issues. Comments on how Kosovo is affected from the current Eurozone crisis and the possibilities of Kosovo having debt issues, were given by Mr. Pula. The lists of questions presented to the interviewees are attached in Appendix II. The second sources of my research were studies conducted by prominent world economists: Paul Krugman, Carmen Reinhart, Keneth Rogoff, Maurice Obstfeld, Hyman, and Dullien and Schwarzer.

Quantitative Research: OLS Model and Binary Logistic Model

The empirical section of this research thesis includes two models that were developed, an GLS (Generalized Least Square) model and Binary Logistic Model, constituting the most important part of primary research in this project. In the following of this section are presented the variables identified (affecting the debt level in a country or leading to the crisis), the econometric model, and the theoretical expectations. Using the Eurostat and World Bank databases for other analyses, constitute the secondary sources of this research study.

Economic Models

In order to estimate the impact of specific variables on government debt level and crisis, two GLS econometric models and one Binary Logistic model were developed consisting of panel data for 2002-2011 (n=163). Based on literature review the following economic model was developed:

$$\text{GLS: } D_{\text{GDP}} = \beta_0 + \beta_1 G_E + \beta_2 G_S + \beta_3 L_P + \beta_4 P_S + \beta_5 D_C$$

$$\text{Binary Logistic: } C = \beta_0 + \beta_2 G_S + \beta_3 L_P + \beta_4 P_S + \beta_5 D_C + \beta_6 D_{\text{GDP}} + R_L$$

D_{GDP} = Debt to GDP – 60% (Maastricht Rule), dependent variable

G_E = Government Effectiveness, -2.5 to 2.5

G_S = Gross Savings as % of GDP

L_P = Labor Productivity, GDP per person employed index

P_S = Expense as % of GDP

D_C = Domestic Credit to Private Sector as % of GDP

C = Crisis as an event, 1 if there is Government Debt Crisis, 0 if not

R_L = Rule of Law, -2.5 to 2.5

Debt to GDP: in the GLS random effects estimation, the Debt to GDP is used as dependent variable and in Binary Logistic model is used as independent variable. Reinhart and Rogoff (2010) in their study of 44 countries in a time frame of 200 years, find that when debt to GDP level is above 90% in a country the growth rate median decreases by 1%.³⁸ But, Manasse and Rubini (2005) in their empirical study find out that debt to GDP level is not a strong predictor on causing government debt crisis.³⁹ Hence in the binary logistic model I will test if debt to GDP variable is a factor that causes debt crisis or not.

Government effectiveness: Knack and Keefer (1995) and Mauro (1995) by analyzing different measures related to government performance, conclude that government quality is highly related to economic growth. As such poor services in the public sector and low level of policy implementation are assumed to negatively affect the economic performance of the country, leading it toward having higher debt to GDP ratio than countries with more qualitative government.⁴⁰

Gross savings: Harrod(1939) and Domar (1947) state in their studies that one of the variables that has a positive relationship with economic growth is gross savings. If countries have higher gross savings, they will have less difficulties to service their debt. Therefore gross savings are assumed to reduce debt to GDP ratio in GLS model and have no positive impact on causing crisis.⁴¹

Labor Productivity: Abramovitz, Kendrick, and Solow mention the importance of labor productivity as a source of growth.⁴² Higher labor productivity means that countries will perform better, be more competitive, as such having less likelihood on having government debt crisis or high debt to GDP ratio.

³⁸ Reinhart, C. M., & Rogoff, K. S. (2011). *A decade of debt*. Washington, DC: Peterson Institute For International Economics.

³⁹ Quoted in Irons, J., & Bivens, J. (2010). *Government Debt and Economic Growth*. Economic Policy Institute.

⁴⁰ Quoted in Evans, P., & Rauch, J. E. (1999). *Bureaucracy and Growth: A Cross-National Analysis of the Effects of "Weberian" State Structures on Economic Growth*. American Sociological Review.

⁴¹ Quoted in Aliyu, R. M., & Usman, U. A. (2013). *An Econometric Study of the Impact of External Debt, Public DEBT and Debt Servicing on National Savings in Nigeria: A Cointegration Approach*. IJMSSR.

⁴² Quoted in Jorgenson, D. W. (1991). *Productivity and Economic Growth*. University of Chicago Press.

Public Spending: The high debt to GDP ratio of governments is mainly related to their overspending, as a result of which they have to borrow money. So with this variable I want to estimate the percentage increase on debt to GDP ratio as a result of increased expenditures of the government.

Domestic Credit to Private Sector: Gournichas and Obstfeld (2011) define the domestic credit variable as an important predictor of crisis. From their panel logit model with fixed effects, they estimate that an increase of credit-GDP of about 9 percent increases the likelihood of banking crisis in the next three years of 6.4 percent.⁴³ Hence I will include this variable to examine if the domestic credit expansion (including here the banks activities on buying bonds and debt securities) in Eurozone after financial liberalization, mentioned in the sections above, had an impact on creating crisis; originating from the financial crisis and/or banking crisis, which happened as a result of holding those underperforming bonds. If yes, this would lead to the possible origin of debt crisis which is government's intervention on recapitalizing banks.

Crisis: Is a dichotomous variable included in the GLS model to find the difference in debt to GDP ratios between countries that are going through government debt crisis and others that are not, and included as dependent variable in Binary Logistic Model.

Rule of Law: The World Bank Indicator on Rule of Law (2012), show Italy and Greece being among the countries with the lowest indices in Eurozone; Italy is the second and Greece the third one. The citizens' trust on law functioning on areas such as: courts, police, enforcement of contracts, private property, and violence and crime based on the data is comparatively lower in these two countries. Hence, I will include this variable in my panel logit model, to see if the low credibility of public institutions is a factor that has caused crisis.

The variables' definitions together with theoretical expectations can be found in Appendix III. In the first GLS model, G_E , G_S , L_P , P_S , D_C , and C were used as independent variables while in the second model the P_S variable was excluded because of the suspicions that it is multicollinear with Debt to GDP variable. One issue with the Labor Productivity L_P variable was that several indices were forecasted in Eurostat database, because of lack of measurements and there were breaks in time series; which may affect the model negatively such as getting a result related to L_P which is not in line with theoretical expectations. In Logistic Regression, G_S , L_P ,

⁴³ Gourinchas, P., & Obstfeld, M. (2011). *Stories of the Twentieth Century for the Twenty-First*. American Economic Journal.

Based on both models one, the relationship between Labor Productivity (L_P) variable and Debt to GDP (D_{GDP}) level is positive. The calculated p-values of this variable for both models 0.534 and 0.486, respectively, are higher than the critical p-value 0.05, so showing this variable as insignificant on explaining the D_{GDP} level. Also the sign of the variable in both models is not in line with our theoretical expectations.

The Public Spending variable is included only in the first linear model. Based on results, other things equal, Public Spending (P_S) has positive relationship with Debt to GDP (D_{GDP}) level and for one percent increase in Public Spending, Debt to GDP level increases for 2.08%. The p-value 0.000 of this variable is less than critical p-value 0.05, which makes it a significant explanatory variable; as expected. The P_S and D_{GDP} variables were also checked if they are multicollinear, because it is assumed that D_{GDP} variable incorporates the P_S . But the calculated correlation coefficient was 0.5972 which is lower than the rule of thumb for severe multicollinearity 0.8.⁴⁴

The Domestic Credit (D_C) variable, part of both models, has a positive relationship with Debt to GDP (D_{GDP}) variable in both models, which is in line with theoretical expectations. But the p-values 0.876 and 0.267, respectively, are higher than critical p-value 0.05 hence showing this variable as not significant on explaining the dependent variable.

In the first OLS model, the Crisis (C) dummy variable has a positive relationship with Debt to GDP level (D_{GDP}), hence, ceteris paribus, if a country is going through crisis its D_{GDP} level will increase for 17.54%. The calculated p-value of this variable 0.027 is lower than critical p-value 0.05, showing Crisis as a significant variable, which is also in line with theoretical expectations. The second OLS model, shows a positive relationship between C and D_{GDP} level but its calculated p-value 0.548 is higher than critical p-value 0.05; therefore not significant.

As seen above, the first GLS model denotes the key issues of Eurozone countries experiencing government debt crisis, the public spending and government effectiveness issues.

In Greece the increased public spending and government ineffectiveness through years, till the crisis occurred, were mainly coming from increasing public investments, wages in public sector, tax evasion, spending on defense, social programs and pensions, which consist of generous schemes. Only between period 2001 and 2007, the expenditures of central government would increase by 87%, while revenues only by 31%. Moreover, in 2004, spending on public

⁴⁴ Gujarati, D. (2006). *Essentials of Econometric. Chapter 8*. McGraw-Hill.

administration would be the highest compared to other Eurozone and OECD countries. In Greece, a typical retiree gets a wage replacement rate of 70-80% with only 35 years of work contribution, compared to other countries, most of which require minimum 40 years of work contribution. Also, early retirement is a common issue since the average retirement age for men is 62.4 years and women 60.9. Also, if a person worked about 45 years, he/she could get about 96% of the previous gross wage compared to 52% that an OECD worker gets on average; for the same period of time.⁴⁵ Furthermore, the economy is lagging behind compared to other developed countries because of not innovative markets, which tend to be also over-regulated. Also a big problem in Greece's economy is the informal economy, which is assumed to be around 25% to 30% of GDP, which directly infers the low degree of policies implementation; hence the low government effectiveness⁴⁶

In Italy public spending in areas such as social protection, public services and health sector are in the main focus of government. Only from 2006 to 2009, total expenditures of government increased for more than 115 billion Euros. Italy's spending on on health sector from 2000 to 2009 rose by 1.9% on average. The rate of informal economy in Italy is assumed to be over 20%.⁴⁷

Random-effects logistic regression		Number of obs	=	163	
Group variable: id		Number of groups	=	17	
Random effects u_i ~ Gaussian		obs per group: min	=	7	
		avg	=	9.6	
		max	=	10	
Log likelihood = -10.095238		wald chi2(5)	=	16.25	
		Prob > chi2	=	0.0062	
crisis	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
debttogdp2	.0915741	.0843835	1.09	0.278	-.0738144 .2569627
laborprod	-.1169335	.0981423	1.19	0.233	-.0754219 .3092889
domesticcr~s	.1071248	.0521301	2.05	0.040	.0049518 .2092979
ruleoflaw	-22.73771	6.739148	-3.37	0.001	-35.9462 -9.529221
grosssavings	-.0025489	.5387458	-0.00	0.996	-1.058471 1.053373
_cons	-6.95512	10.29779	-0.68	0.499	-27.13841 13.22817
/lnsig2u	5.778896	.7202705			4.367192 7.190601
sigma_u	17.98338	6.47645			8.878176 36.42664
rho	.9899298	.0071803			.9599343 .9975268
Likelihood-ratio test of rho=0: chibar2(01) =		87.32	Prob >= chibar2 =	0.000	

The Logistic model was developed with the aim of identifying the variables that have a probability to cause the government debt crisis in Eurozone. Based on the regression results, D_{GDP} variable increases the probability of having crisis, which is in line with theoretical expectations but the calculated p-value of this variable 0.278 is higher than critical p-value, as

⁴⁵ *Greece at a Glance: Policies for a Sustainable Recovery*. Organisation for Economic Co-operation and Development (OECD). www.oecd.org/greece/44785912.pdf

⁴⁶ Nelson, R. M., Belkin, P., & Mix, D. E. (2011). *Greece's debt crisis overview, policy responses, and implications*. Washington, D.C.: Congressional Research Service.

⁴⁷ Russo, F. (2010). *Tax Evasion and Community Effects in Italy*

such it is not a significant variable on impacting crisis. The model shows that as Labor Productivity L_p variable increases, ceteris paribus, the probability of having crisis increases but the calculated p-value 0.233 is higher than critical p-value 0.05, so this variable is insignificant.

Results show that as Domestic Credit D_C variable increases the chances of having crisis. This infers that the increasing number of loans issued to household sector, trade credits, purchases of non-equity securities (including here debt securities), and other accounts receivable have a positive impact on preceding banking crisis which is in accordance with theoretical expectations and Obstfeld logit panel results. The calculated p-value 0.04 is lower than critical p-value 0.05; making it significant. This leads us to the conclusion that government directed a significant amount of its spending on recapitalizing banks which were affected to an extent from the last global financial crisis and more because of holding bonds and securities of the underperforming governments.

The logistic model identifies the Rule of Law as the variable with the highest probability on causing government debt crisis. Debt to GDP variable, as noticed from the results, is insignificant and leads to the conclusion that even though a country has not met the Maastricht Criterion on Debt to GDP threshold of 60%, that does not mean that a Eurozone country will go in crisis. It is the institutional setting, Rule of Law, that is an important factor for a country not to have crisis. This is in line with theoretical expectations. For example, if the courts in one country tend to be ineffective and corrupted, and government does not ensure property rights then the chances of having low rate of investments are higher; this affecting the economic growth negatively and leading to crisis. The calculated p-value 0.001 is lower than critical p-value 0.05, hence showing this variable significant.

EU Crisis and the issues related to the Fiscal Union and Maastricht Criteria and involvement of the IMF

A big concern since Eurzone was created is the lack of coordination between fiscal and monetary policies of the member countries. Formulating policies independent of one another, government targeting economic growth by increasing expenditures on one side and central bank targeting price stability, would mostly raise conflict between them and would force them for later “cooperation” in order to avoid economic issues. A government which makes capital investments may end up in a deficit, and in order to cover that gap it issues bonds. Citizens seeking to make risk free investments, buy those bonds. As a result, liquidity in the private

sector decreases and interest rates increase. This decrease of liquidity is also followed with an increase in interbank target rate, that in overall will result in less growth for the country in that year. Allowing countries to make independent fiscal policies and providing them a centralized monetary policy, has not been a successful approach of the union.

Fiscal Union

The independence of Eurozone countries on formulating fiscal policy has allowed them to increase or decrease taxes, spending on wages, pensions, and social security, from which policies asymmetric shocks originated. For example, it was France's government decision to lower working hours per week to 35 hours while in other countries usually is 40, such as it was Germany's government decision to decrease labor costs since 1999 thus increasing competitiveness; while most of the other countries were increasing expenses on wages.⁴⁸ Similarly, it was Greece's government decision to implement soft policies on retirement age, especially on early retirement, compared to other developed countries which seek to restrict these policies. If the status quo maintains, the growing government debt issues and asymmetric shocks occurring in country members of Eurozone may bring ECB to a point of changing the centralized monetary policy, like lowering the interest rates for stronger economies and increasing them for economies continuous economic issue; which would then lead to further divergences and be in conflict with the concept of the union.⁴⁹ Hence it is necessary for Eurozone to have an institution with executive rights, a fiscal union which would eliminate the risks of these asymmetric shocks that come from individual states' decisions and from which the whole Eurozone may be affected; such as the ongoing government debt crisis. This executive committee would create a central budget, in which all the country would contribute, with role of assisting countries on implying policies that do not generate economic shocks. Also in case of shocks, now symmetric, this union would have the means to intervene and stop the spread of them.

IMF

The IMF, acting as the lender of last resort, is playing a significant role on the ongoing debt crisis in Eurozone. Through its intervention besides saving the Greece from a default, it has also stopped the contagion of the crisis in other countries and the breaking up of Eurozone. But the main implication related to IMF intervention is about the fiscal rules it requests from countries to impose. IMF looks for immediate changes, and does not provide liquidity to countries without the fiscal policy changes being decided by the government; in this case those related to reducing

⁴⁸ Grauwe, P. D. *On Monetary and Political Union*. University of Leuven.

⁴⁹ Vetter, S. (2013). *Do all roads lead to fiscal union?*. Frankfurt: Deutsche Bank.

debt. The Greece's government, A drawback of this, in short term, is that countries such as Greece have to increase taxes and reduce public spending, so applying contractionary fiscal policy. This has a direct impact on these fragile economies such as that of Greece, mainly manifested on increased unemployment, decreased pensions, wages, and investments. The decision of the Government to cut spending will include stopping investments in some crucial sectors that will have long term implications for the country, such as education. But on the other side austerity measures imposed are assumed to have a positive impact on market agents' expectations because the credibility on government increases and the risks for government default decrease. Hence, under these conditions, agents will decrease their premium on government bonds. This may have an effect on crediting entities to lower interest rates, leading to investment and consumption boom.⁵⁰

Maastricht Criteria

The role of Maastricht Criteria on achieving economic stability, growth, and convergence among Eurozone countries is debatable with the regard of its effects, and countries' commitment toward respecting them. There are three important points which infer the Maastricht Treaty's lacks on achieving these goals. First as seen from the figure 8, based on 2011 data, 71% of the Eurozone members do not respect the criterion on having no more than 60% of debt to GDP. The average debt to GDP level on Eurozone is 75.46%. For instance Italy and Greece have had their debt to GDP levels above 90% since in 90s, hence they never respected this rule since it was approved.⁵¹ This infers that the role of Stability and Growth Pact mechanism toward enforcing the Maastricht criteria on public spending was limited; so countries would act independently without regarding the 60% threshold.

Second, having a deficit limit is not reasonable, because a country should have a flexibility on expenses. Also as argued by Keynes, sometimes state should be a counter the cycle force because sometimes we have a downward trend in the economy and in that period if government increases expenses it helps in passing that cycle faster; and there is no monetary logic in that rule (Pula)

Third, during these years among indicators showing the nonmatching on convergence, better saying increasing divergence, between countries is the unit labor costs indicator. As noticed from the figure 9, in a ten year period from 1998 to 2008 Germany government has managed to reduce the labor costs for more than 10%, while countries like Greece and Italy have increased labor costs for more than 15%, in the same period. The growth rate of the economy of a country

⁵⁰ Alesina, A. (2010). *Fiscal adjustments: lessons from recent history*. Harvard University.

⁵¹ Lane, P. R. (2012). *The European Sovereign Debt Crisis*. : Journal of Economic Perspectives

depends on the growth rates of exports, which in turn depends on the international competitiveness of exports.⁵² For Greece and Italy, based on current account graphs of these countries, in overall we notice a negative trend on balance of payments of these countries since 1998; even though at a lower rate in Italy which is an industrialized country.

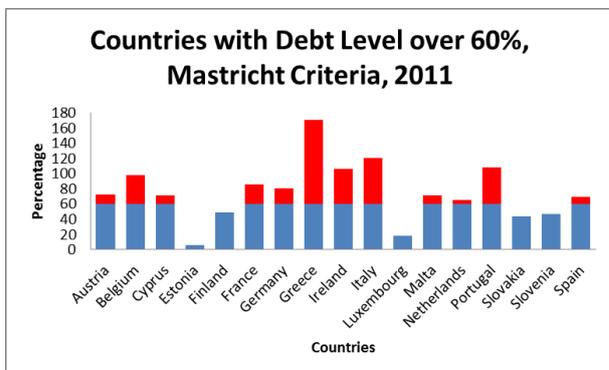


Figure 8. Debt/GDP ratio, EU-17, IMF,author

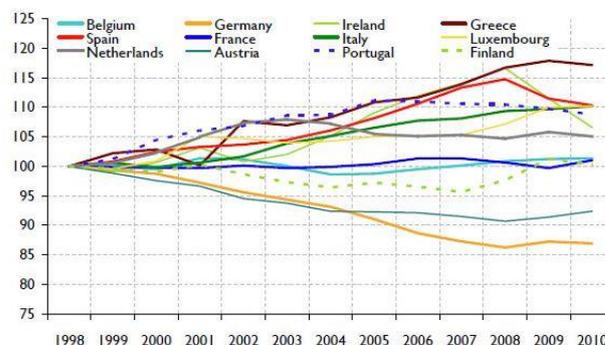


Figure 9. Divergent Unit Labor Costs, EU-17⁵³

Also the idea on unifying the Europe, especially the Eurozone members to more extent, has been a brave but yet risky. The diversity of country members with respect to culture, traditions, and behaviors has its implications, regarding the economy. Citizens of some countries tend to have higher marginal propensity to save, while other rely more in government programs, spend above their income by using different financial options, and so on; in a way affecting the formulation of fiscal policies.

EUROZONE CRISIS: WHAT CAN BE LEARNED?

In 2009, Kosovo's parliament voted the "Law on Public Debt" in which strategies, limitations, and rules on state debt are defined. Based on Article 5, Kosovo's government debt to GDP cannot in anyway exceed 40% threshold. Additionally Article 32 defines that debt to GDP, long and short term debt and including here guarantees, cannot exceed 40% of the generated revenues and general grants of the fiscal year preceding the debt issue. Currently, Kosovo's debt to GDP level is 8.44%, which infers stability in this aspect. Until 2012, public debt of Kosovo was completely external debt but then Treasury bonds were issued by government, hence initiating the internal debt which now, as seen in figure 10, comprises around 18% of the total debt; most probably to increase in the years to come.

⁵² Felipe, J., & Kumar, U. (2011). *Unit Labor Costs in the Eurozone: The Competitiveness Debate Again*. NY: Levy Economics Institute.

⁵³ Roubini, N. (2011). *The Eurozone Could Break Up Over a Five-Year Horizon*. : Credit Writedowns.

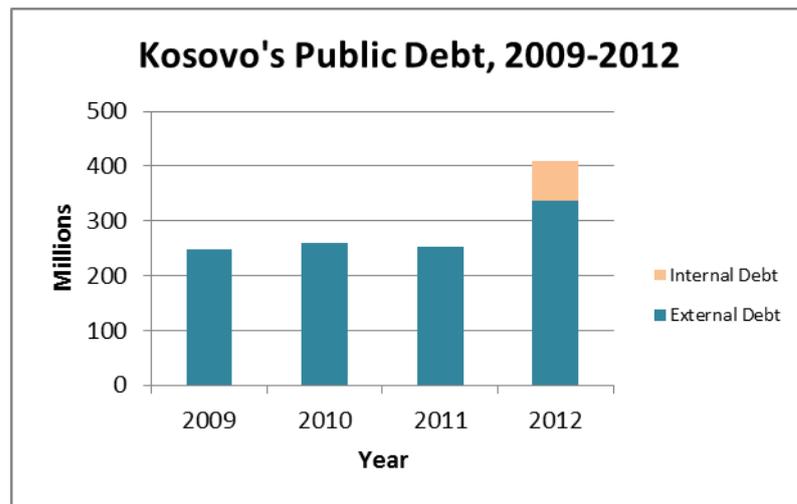


Figure 10. Kosovo's Public Debt, Ministry of Finance, author

Kosovo does not have an integrated financial sector, and as such, the effects of financial crisis of 2007-2008 and the ongoing government crisis are not as strong as in other countries. The level of remittances in 2012 remained closely the same as in the preceding years at 261 million Euros. There was a significant decrease on exports by 18.4%, but exports constitute a small section of economy. The direct effect of the ongoing government crisis is on price of basic commodities, the price of which has increased (Pula). There is a noticed decrease in Foreign Direct Investment of about 75 million compared to 2011, but that is mainly related to inability of Kosovo's government to ensure property rights, avoid corruptive affairs, infrastructure and independence of courts, that would attract FDI.⁵⁴

But there are two matters that may change the debt level situation, and which are not anticipated by now from the Kosovo's government. The Ex-Yugoslavia debts to be paid to World Bank and London and Paris Club, where Kosovo will have to participate sooner or later, and Kosovo's government decision to build the Kosova e Re power plant constitute the upcoming matters to deal with. In 1991, with the dissolution of ex-Yugoslavia the independent countries would undertake debts and assets corresponding to them. In this period Kosovo was part of Serbia, which inherited 38% of those debts. After the last war between Serbia and Kosovo in 1998, which lead to Kosovo gaining its independence as a state, negotiations related to debt responsibilities began in early 2002. Serbia, that stopped servicing that debt till in 2002, assumes that Kosovo must take only the debt part and not the assets, as Kosovar experts of economy request.⁵⁵ This issue is also defined in the document known as Ahtisari's Plan for Kosovo "Comprehensive Proposal for the Kosovo Status Settlement", in article 1 of external debt annex, which states that Kosovo should assume its portion of that debt, the level of which

⁵⁴ CBK (2012). *FINANCIAL STABILITY REPORT*. CENTRAL BANK OF THE REPUBLIC OF KOSOVO. <http://bqk-kos.org/repository/docs/2012/Financial%20Stability%20Report%202012.pdf>

⁵⁵ Kasapolli, V. (2009). *Kosovo's costly World Bank membership*. Osservatorio Balcani e Caucaso.

should be determined from negotiations achieved between Serbia and Kosovo with the assistance of International Monetary Fund. Before the negotiations end, based on article 2 of the same annex, Serbia should continue servicing that debt and Kosovo will then compensate its part after an agreement is achieved.⁵⁶ With regard to this issue, when IMF performs debt sustainability investigation for Kosovo, it assumes the level of debt to be inherited from Serbia as 7% (Sulemane). At this point, Kosovo's debt to GDP would increase to 15.44%.

Also, the Kosovo's government plan to build the "Kosova e Re" power plant in a near future, which is assumed to around 1 billion Euros, can be a source of debt to GDP increase. The World Bank has been supporting this project from the beginning. Hence most probably, the World Bank will be a guarantee in this project, acting as a contingent liability that will pay the obligations to the third party, the company constructing the Kosova e Re power plant in this case, in case the government of Kosovo fails to meet its obligations to the company. This is registered as part of debt to GDP of Kosovo, until the obligations are finished. As such, in this case the debt to GDP level of Kosovo would be at the level of around 26%.

⁵⁶ Ahtisaari Plan. (2007). *Comprehensive Proposal for the Kosovo Status Settlement*: United Nations Security Council

CONCLUSION

The current government debt crisis in Eurozone is a concerning and problematic issue. The unstable fiscal policies on spending, the effects of last financial crisis and the domestic banking crisis, inefficient institutional setting, and loss in competitiveness have brought some of the biggest Eurozone countries into a stage of recession. Further, two of the affected countries from this crisis Greece and Italy, are facing issues such as high unemployment rate, being 28.6% and 11.1% respectively, low investments, and social distress.⁵⁷

Based on the GLS model with random effects estimation, I find out that one of the variables affecting the increase of the debt to GDP ratio in countries such as Greece and Italy is government effectiveness, which encompasses the quality of the services in the public sector, civil sector, independence of public institutions from political influence, quality of policy formulation and the degree of implementation, and government's commitment toward these policies. The other important variable increasing the indebtedness of these countries is Public Spending, which expresses the deteriorated spending of government on providing goods and services, compensating employees, and more. And from my findings, countries being in Crisis tend to have a higher debt to GDP ratio of about 17% compared to those which are not in crisis.

The Logistic Model regression estimation reveals that one of the factors highly impacting the government debt crisis in Eurozone countries is the Rule of Law. It is low citizens' trust on courts, police, enforcement of contracts, private property, and violence and crime that has led to the crisis. Under these circumstances it is rational that citizens' have reduced investments, holdings on banks, and more. Italy was positioned as the second country with the worst Rule of Law index, followed by Greece being the third, hence showing their poor institutional setting. Another significant factor which increases the likelihood of the crisis is domestic credit variable. The effects of the last global financial crisis and domestic banking crisis, which came as a result of banks buying government bonds and debt securities urged an intervention of government to recapitalize banks. This increased government debt and worsened the economic situation, leading to government debt crisis.

⁵⁷ Source: Google Public Data, Eurostat

RECOMMENDATIONS

Based on the analysis conducted and the results of both models developed in this thesis my main recommendations are:

Conduct structural changes in the economy

Both Greece and Italy, should intensify their reforms in economy in order to get out of the recession. Focusing on implementing efficient fiscal policies that will reduce public spending on wages, public administration, and pensions is of a necessary need. The austerity measures undertaken until now show a good initiation toward improving the economy. Moreover by enforcing rule of law, institutional setting, countries would benefit in attracting investments and collecting more taxes, considering that the level of tax evasion in both countries is assumed to be more than 20% of GDP.

Creation of a Fiscal Union

A fiscal union should be created in Eurozone, in order to have a better coordination between fiscal and monetary policies of countries. This assumes that union would assist on formulating fiscal policies of countries, so that asymmetric shocks would not occur. Cases which create fiscal instability like France reducing the working hours from 40 to 35 per week, Greece adopting retirement policies which allow early retirement at 60-62 with replacement wage of close to 96%, and more, would be avoided and shocks would be less favorable. Also, this union by having a central budget would be able to intervene during the crisis and better manage the situation.

More active ECB during a crisis period

European Central Bank should be more active in acting as the lender of last resort, considering that it is the only legal body in Eurozone that has the executive right to do that, by buying government bonds in secondary market in order to provide liquidity to the financial institutions of the members countries when facing difficulties; like in the current government debt crisis. Risks related to increased inflation can be avoided considering that there are safe alternatives to improve the liquidity of banks without impacting it, such as increasing the monetary base and not the money stock; a situation where banks keep the money injected from ECB for their liquidity and not issuing loans to private sector.

Maastricht Criteria

The role of Maastricht criteria and goal on achieving convergence and applying fiscal rules to countries should be reconsidered. First, as analyzed throughout this report, the divergences on

labor costs among countries were present since Eurozone was created. Countries like Germany would decrease labor costs for the last 10 years by 10%, compared to countries like Greece and Italy which increased them by more than 15%. Also having a debt to GDP rule of no more than 60%, was not an indication for countries to avoid overspending. Countries like Greece and Italy had a debt to GDP over 90% from 1990s. Also, the deficit rule on 3% is rather irrational, considering that it inhibits a country to intervene in then economy in periods of economic instability.

Kosovo

In the context of the recent debt crisis, Kosovo should carefully plan its fiscal policy approach, especially by not making expensive capital investments, building highways such as it is doing now, which will lead to increasing government deficit (year-to-year) and lower the possibilities to invest in other job creating fields; such as for example in mining industry or human capital development.

REFERENCES

- Ahtisaari Plan. (2007). *Comprehensive Proposal for the Kosovo Status Settlement*: United Nations Security Council
- Aisen, A. and Hauner, D. *Budget Deficits and Interest Rates: A Fresh Perspective*. IMF Working Paper, 2008, page 5.
- Alesina, A. (2010). *Fiscal adjustments: lessons from recent history*. Harvard University.
- Alphandéry, E. (2012). *Euro Crisis*.: Foundation Robert Schuman.
- Aliyu, R. M., & Usman, U. A. (2013). *An Econometric Study of the Impact of External Debt, Public DEBT and Debt Servicing on National Savings in Nigeria: A Cointegration Approach*. IJMSSR.
- Athanassiou, E. (2009). Fiscal Policy and the Recession: the Case of Greece .Paper No 103.
- Borghi Elisa (2010) *Italy and Greece: Financial crisis as sovereign debt crisis*
- Bukowski, S. I. (2006). *The Maastricht Convergence Criteria and Economic Growth in the EMU*.
- CBK (2012). *FINANCIAL STABILITY REPORT*. CENTRAL BANK OF THE REPUBLIC OF KOSOVO. <http://bqk-kos.org/repository/docs/2012/Financial%20Stability%20Report%202012.pdf>
- Cole, H. L., & Kehoe, T. J. (1998). *Self-fulfilling debt crises* (. ed.). Minneapolis: Federal Reserve Bank of Minneapolis, Research Dept..
- David N. Hyman (2010), “Public Finance – A Contemporary Application of Theory to Policy” pages 480-481.
- Dullien, D. S., & Schwarzer, S. D. (2011). Dealing with debt crisis in the Eurozone. http://www.swpberlin.org/fileadmin/contents/products/research_papers/2011_RP11_Dullien_swd_ks.pdf and
- Efthimiadis, T., & Tsintzos, P. (2011). *The Internal-External Debt Ratio and Economic Growth*. Journal of Policy Modeling
- Felipe, J., & Kumar, U. (2011). *Unit Labor Costs in the Eurozone: The Competitiveness Debate Again*. NY: Levy Economics Institute.
- Gibson H., Hall S. & Tavlas G. (2011). The Greek Financial Crisis: growing imbalances and sovereign debt. Working paper nr. 2011124. Bank of Greece-Eurosystem.
- Gourinchas, P., & Obstfeld, M. (2011). *Stories of the Twentieth Century for the Twenty-First*. American Economic Journal.
- Grauwe, P. D. (2006). *What Have We Learnt about Monetary Integration since the Maastricht Treaty?* Blackwell Publishing Ltd.

- Grauwe, P. d. (2011). *Only a more active ECB can solve the euro crisis*. Brussels: Centre for European Policy Studies.
- Grauwe, P. D. *On Monetary and Political Union*. University of Leuven.
- Greece at a Glance: Policies for a Sustainable Recovery*. Organisation for Economic Co-operation and Development (OECD). www.oecd.org/greece/44785912.pdf
- Gujarati, D. (2006). *Essentials of Econometric. Chapter 8*. McGraw-Hill.
- International Monetary Fund. (2011). *Republic of kosovo: Staff report for the first assessment under the staff-monitoring program*.
- Irons, J., & Bivens, J. (2010). *Government Debt and Economic Growth*. Economic Policy Institute.
- Jorgenson, D. W. (1991). *Productivity and Economic Growth*. University of Chicago Press.
- Kaplanoglou G., Rapanos V. (2011), *The Greek Fiscal Crisis and the Role of Fiscal Governance*. LSE, GreeSE Paper No 48.
- Kasapolli, V. (2009). *Kosovo's costly World Bank membership*. Osservatorio Balcani e Caucaso.
- Krugman, P. R. (1988). *Financing vs. forgiving a debt overhang*. Cambridge, MA: National Bureau of Economic Research.
- Lane, P. R. (2012). *The European Sovereign Debt Crisis*. : Journal of Economic Perspectives
- Magri, S., Mori, A., & Rossi, P. (2004). *The entry and the activity level of foreign banks in Italy: An analysis of the determinants*. Italy.
- Marelli, E., & Signorelli, M. (2010). *Institutional, nominal and real convergence in Europe*. Banks and Bank Systems.
- Nelson, R. M., Belkin, P., & Mix, D. E. (2011). *Greece's debt crisis overview, policy responses, and implications*. Washington, D.C.: Congressional Research Service.
- Obstfeld, M. (1995). *Models of currency crises with self-fulfilling features*. Cambridge, MA: National Bureau of Economic Research.
- Panizza, U. (2008). *Domestic and External Public Debt in Developing Countries, page 14*.
- Policy Development and Review Department (2003) *Lessons from the Crisis in Argentina*. (2003). International Monetary Fund, IMF, p. 72.
- Press Release: Statement by IMF Managing Director Christine Lagarde on the G-20 Cannes Summit." N.p., 4 Nov. 2011. Web. Tasks." *ECB*:. European Central Bank, n.d. Web <<http://www.ecb.int/ecb/orga/tasks/html/index.en.html>>.
- Quaglia, L., & Pagoulatos, G. (2010). *Italy and Greece: Financial crisis as sovereign debt crisis*
- Reinhart, C. M., & Rogoff, K. S. (2010). *From financial crash to debt crisis*. Cambridge, Mass.: National Bureau of Economic Research.

- Reinhart, C. M., & Rogoff, K. S. (2011). *A decade of debt*. Washington, DC: Peterson Institute For International Economics.
- Russo, F. (2010). *Tax Evasion and Community Effects in Italy*.
- Sachs, J. (1986). *Managing the LDC Debt Crisis*. .: Harvard University .
- SESRIC, (January-June 2011). The Eurozone Debt Crisis: A Second Wave of the Global Crisis. *In the Seric Reports on the global Financial Crisis*
- The Maastricht Treaty (1992). *Provisions amending the treaty establishing the European economic community with a view to establishing the European community*. Maastricht.
- Valiante, Diego. (2011). *The Eurozone Debt Crisis: From its origins to a way forward*. Paper No. 251, CEPS, August.
- Vetter, S. (2013). *Do all roads lead to fiscal union?*. Frankfurt: Deutsche Bank.

APPENDICIES

Appendix I

Table 2. FED-BoE-ECB key balance sheet indicators (€mn)*

	Federal Reserve	Eurosystem	Bank of England
Gold (Q1 2011) ^	261,480.86	363,250	9,975.93
FX currencies (Q1 2011)^	89,134.39	222,419.64	52,357.99
Tot.	350,615.25	585,669.64	62,333.91
Total assets	2,275,768***	2,000,471	256,502.48
x times Gold/FX	x6.49	x3.42	x4.12
Notes and coin (M0)	716,979	855,737	67,974
% tot. assets	31.5%	42.78%	26.50%
x times Gold/FX	x2.05	x1.46	x1.09
M2 aggregate	6,472,795	8,489,167	2,359,698
Government securities°	1,139,160	457,426**	224,613
Other securities	701,633	60,873	8,883
Tot.	1,840,793	518,299	233,496
% tot. assets	80.89%	25.76%	91.03%
x times M0	x2.57	x0.61	x3.44
Capital	35,969	81,480	5,011
% tot. assets	1.58%	4.07%	7.37%
Reserves balances (minimum and excess)	892,809	208,285	145,345
% tot. assets	39.23%	10.41%	56.66%
Govt debt (securities outstanding)	10,129,952	8,323,500	1,268,200
Govt sec held/Tot.	11.25%	5.45%**	17.71%
Interbank rates (Aug 4 th)∞	0.09%	0.851%	0.54%
Nominal interest rates	0.25%	1.50%	0.50%
Excess reserves rates	0.25%	0%	n/a
Deposit Facility (term dep. on July 26th)	0.28%	0.75%	0.25%

Balance sheet of FED -BOE- ECB⁵⁸

⁵⁸ Valiante, D. (2011). *The Eurozone debt crisis from its origins to a way forward*. Brussels: Centre for European Policy Studies.

Appendix II

Interview with Mr. Jose Sulemane, the IMF representative in Kosovo and

1. What was/is the role of IMF on the ongoing government debt crisis in Eurozone? Greece? Italy?
2. Which are the conditions to be met from a state in order to get rescue packages, loans, and technical support from IMF?
3. Was IMF right when decided to provide funds to Greece even though it was understandable that Greece was facing solvency rather than liquidity problems? What was the basis of the IMF intervention?
4. Is there a possibility of breaking up of the Eurozone, and if yes what will be the consequences of it?
5. Is there a chance that Kosovo's public debt will grow in the coming years?
6. Do you think that Eurozone countries should have centralized fiscal policy as they have centralized monetary policy?

Interview with Mr. Besnik Pula, sociology researcher in Princeton University

What is the main difference between borrowing from external crediting markets or internal ones?

Is the Maastricht criterion on deficit, 3% of GDP, reasonable?

Can Kosovo follow the path of Greece related to government debt crisis?

What were the transmission belts of government debt crisis in Kosovo?

Appendix III

Variable	Definition	Expected Sign	Source
<u>Debt to GDP</u> (D_{GDP})	Debt to GDP variable is presented as % of GDP, and is calculated by subtracting 60%, which is the Maastricht's rule on public debt limit, from the debt to GDP level of the country.		Eurostat
<u>Government Effectiveness</u> (G_E)	The government effectiveness index, G_E , estimates the quality of the services in the public sector, civil sector, independence of public institutions from political influence, quality of policy formulation and the degree of implementation, and government's commitment toward these policies. It takes values in the range from -2.5, showing weak government performance, to 2.5 indicating strong performance. The sign of this variable is expected to be negative, considering that its components such as qualitative services and policies would positively impact the growth of the country, and reduce the misuse of public money, hence reduce the public debt.	negative	World Bank
<u>Gross Savings as % of GDP</u> (G_S)	The gross savings variable, G_S , is expressed as a percentage of GDP and is calculated as gross national income less overall consumption, plus net transfers. The sign of this variable is expected to be negative considering that higher the value of gross savings the lower the debt to GDP level of a country.	negative	World Bank
<u>Labor Productivity</u> (L_P)	The labor productivity index, L_P , is measured as the GDP per person employed. The productivity indices of all Eurozone economies are compared in relation to the European Union-EU27 average productivity index. If a country has an index of less than 100 this means that the country's level of GDP per person employed is less than the average of EU27 (EU 27 = 100), and vice versa. Purchasing Power Standard (PPS) was applied to eliminate differences in price levels when this index was calculated, in order for the comparisons and to be meaningful. Also the terms "person employed" do not distinguish a full-time or part-time employee. The expected sign of this variable is expected to be negative since when there is a high productivity of employees, the competitiveness of that country increases; as such impacting the trade balances and reducing the public debt level.	negative	Eurostat
<u>Public Spending</u> (% of GDP) (P_S)	The government spending variable, G_S , is expressed as a percentage of annual GDP and includes the costs of government activities, such as: providing goods and services, compensating employees, social benefits, interest and subsidies, and expenses like rent and dividends. The sign of this variable is expected to be negative, because if a country has less expenses then its	positive	World Bank

	deficit will; so leading to less public debt.		
<u>Domestic Credit to Private Sector (% of GDP)</u>	The domestic credit to private sector variable, D_C , is expressed as percentage of annual GDP and its components are: loans issued to household sector, trade credits, purchases of non-equity securities, and other accounts receivable, that establish a claim for repayment. The sign of this variable is expected to be positive considering that money supply in the market will increase during years because of liberalization of markets, but as a result financial crisis and banking crisis, the underperforming loans and government bonds and securities will increase to, hence making government to spend money on recapitalizing banks. This increases the debt to GDP level and impacts the occurrence of the crisis.	Positive	World Bank
<u>Crisis (C)</u>	In OLS model the crisis variable, C , is an event where it takes the value 1 if there is a government debt crisis occurring in that country, and 0 if not. Countries with government debt crisis are expected to have higher debt to GDP levels. In the logit panel model it is the dependent variable.	positive	
<u>Rule of Law (R_L)</u>	The rule of law variable, R_L , takes values in the range from -2.5, if the rule of law is weak and 2.5 if it is strong. Its components are related to citizens' trust on law functioning on areas such as: enforcement of contracts, private property, courts, police, and violence and crime.	positive	World Bank

Appendix IV

```
. xtreg debttogdp2 governmenteffectiveness grossavings laborprod domesticcredit
> tops crisis, re vce(robust)
```

```
Random-effects GLS regression                Number of obs   =    163
Group variable: id                          Number of groups =    17

R-sq:  within = 0.3496                      Obs per group:  min =     7
        between = 0.2785                      avg   =    9.6
        overall = 0.3032                      max   =   10
```

```
Random effects u_i ~ Gaussian                wald chi2(5)    =   13.44
corr(u_i, x) = 0 (assumed)                  Prob > chi2     =   0.0196
```

(Std. Err. adjusted for 17 clusters in id)

debttogdp2	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
government~s	-17.3328	12.47233	-1.39	0.165	-41.77811	7.112513
grossavings	-1.993848	.898181	-2.22	0.026	-3.754251	-.2334457
laborprod	.1973737	.2832764	0.70	0.486	-.3578378	.7525853
domesticcr~s	.0644704	.0580212	1.11	0.267	-.0492489	.1781898
crisis	7.74747	12.894	0.60	0.548	-17.5243	33.01924
_cons	30.89654	26.17231	1.18	0.238	-20.40025	82.19332
sigma_u	27.634689					
sigma_e	9.8494187					
rho	.8872865	(fraction of variance due to u_i)				