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Sovereign debt during the crisis: Comparative analysis between Eastern and Southern European countries

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ABSTRACT

This study investigates budgetary positions and trends in sovereign debt levels in two groups of EU Member States during the global financial and economic crisis. We argue that current fiscal positions and trends in sovereign debt in the Baltic states and Bulgaria are above all due to the implemented exchange rate mechanism whereas in the southern European countries and Ireland it is the institutional framework of the eurozone that plays a key role for national budgetary policies and respectively debt trends. The existence of an insurance or guarantee fund in the eurozone makes the key difference between its hardly pegged exchange rates and Currency board and has led to the loosening of fiscal discipline especially in the South Europe.

Keywords: Budget deficit, Sovereign debt, Financial crisis, New EU member states, Eurozone.

JEL Classification: H62, H63, G01.

Introduction

Growth of international indebtedness and emergence and spread of debt crises are one of the most important characteristics of the global economy. The increase of foreign debt due to a private sector credit boom together with a rise and accumulation of sovereign debt could result in a banking crisis. A banking crisis hastens government borrowing in order to provide guarantees and bail out financial institutions in difficulty that may lead to a sovereign debt crisis. This is the case of the current crisis in the European Economic and Monetary Union (EMU). The beginning of the global financial crisis in the USA has just accelerated the crisis in the EMU.

Current debt problems in euro zone member states with stand budgetary positions in EU Member States which are outside the euro area. This comparative analysis includes two groups of countries that apply fixed exchange regimes. The first group consists of Greece, Italy, Ireland[1], Spain and Portugal which are part of the eurozone. Since January 1999 the exchange rates of their national currencies have been hardly pegged to the common European currency. Inside the monetary union there is a common monetary policy executed by a supranational central bank - the European Central Bank (ECB). In the same time all the EMU Member States have kept sovereignty in the execution of economic and fiscal policies.

The second group of countries consists of the New EU member states that have implemented fixed exchange regimes (Bulgaria, Lithuania, Latvia, Estonia – before euro adoption in 2011). These are post-communist and transition countries that during the process of European economic and monetary integration have applied fixed exchange rates and Currency boards (Estonia, Lithuania, and Bulgaria).In the Baltic States the main goal was to break up with the Russian ruble and to integrate into the European and global monetary system (Nenovsky, 2009).

This article aims at studying budgetary positions and trends in sovereign debt levels in these two groups of EU member states during the global financial and economic crisis. We are interested in finding links between exchange rates and sovereign debt trends based on qualitative comparative analysis between the chosen countries. We don't have ambition to measure econometrically or statistically this link.

The exchange rate regime is only part of the whole system of economic policy and particularly of the interactions between monetary and fiscal policy. Differences in fiscal balances and public sector debt levels among the EMU member states, between them, and those with fixed exchange rates (Currency boards) result from other factors.

[1]Ireland is not a part of Southern Europe but it is included because of the debt crisis.

The hypothesis exposed in this article is that current fiscal positions and trends in government debt in the first group of countries result from the common European currency and the institutional framework of the eurozone whereas in the second group of countries they are above all due to the implemented exchange rate mechanism.Thus current debt crisis in the EMU is a natural consequence of the eurozone architecture and national economic policies. The existence of public and supranational guarantees in the eurozonemakes the key difference between its hardly pegged exchange rate and Currency board. Current fiscal discipline in the Baltic states and Bulgaria is also considered as a result of the continuous efforts of national governments to become fully integrated into the EU's economy. In this respect we argue that it is more likely that upon euro adoption governments will be tempted to use the existing guarantees in the eurozone and spoil the fiscal discipline.

The article is organized as follows: first, the theoretical framework of the study is presented; second, public finances and sovereign debt trends before the beginning of the global crisis are studied and third, budgetary positions and sovereign debt challenges during the crisis are analyzed.

Theoretical framework

Exchange rate regime is an integral part of the monetary regime in each economy which should be considered in the light of political, economic, and social developments in the individual country. In practice there are two types of monetary regimes: firstly, broadly determined that provide opportunities for entirely free economic and monetary behavior of economic actors and secondly, tightly defined monetary regimes which limit economic and monetary behavior of the agents. In this regard Currency board is a broader monetary regime than that of discretionary policy and in the eurozone much broader monetary regime exists. In the later constraints coming from the existence of exchange rate and convertibility are withdrawn thus national institutional limitations on money are eliminated and there are only those imposed by the European Central Bank. Different monetary regimes (internal anchor), in conjunction with Euro membership (external anchor), shape the whole structure of the economy differently and concentrate economic activity, risks and adjustment mechanisms in different ways.

In comparison to the Currency board regime which is a national monetary system based on foreign reserves and respectively fiscal balance at least in medium term, the euro has its common monetary policy which is not bound with common fiscal policy. In practice euro area member states are not responsible for their public and private debt. It is the institutional framework of the monetary union that triggers moral hazard and irrational behavior of national governments which sooner or later causes sovereign debt crises.

The existence of public and supranational guarantees form a kind of "insurance or guarantee fund" in the eurozone that makes the key difference between its hardly pegged exchange rate and Currency board. These guarantees or subsidies have increased the safety illusion among economic actors and have led to the loosening of fiscal discipline especially in South Europe. Upon euro adoption southern countries and Ireland enjoyed low risk premium (EU accession premium) and the cost of risk substantially decreased. Because of the existence of this hidden subsidy or guarantee these countries have attracted much more resources and capital from the advanced economies. The inflows of foreign capitals and savings have contributed to higher salaries, demand and inflation in these countries which led to the loss of competitiveness. Furthermore credit conditions in the eurozone have been relaxed and a great part of the investments in the Southern Europe were directed to inefficient projects in the catching up countries at the eurozone periphery. The ECB and the advanced countries have been perceived as guarantors to southern countries public and private debt (Nenovsky, Karpouzanov, 2011). Moreover the institutional framework of the monetary union allows the ECB to refinance the banks through the acceptance of collateral of government securities. This facilitated greater redistribution through the budgets and national governments have reinforced state intervention in the economy. In fact they have been able to finance themselves by the ECB. Foreign reserves in the periphery had decreased and melted down before the crisis. During the global financial and economic crisis budgetary positions have further worsened and the European guarantee fund has turned out to be virtual. Thus the creation of the common currency itself has been an instrument to impose lower interest rates, bail-outs of banks and governments through the transfer of sovereignty and freedoms to supranational institutions. This proves that intervention is at the core of the European monetary system (Bagus, 2010).

For better understanding of current sovereign debt trends in EMU Member States it should be considered that when entering a monetary union, member countries change the nature of their sovereign debt in a fundamental way, i.e. they cease to have control over the currency in which their debt is issued. As a result, financial markets can force these countries' sovereigns into default. When investors fear about payment difficulties, they start withdrawing liquidity from national market. Thus the state suffers a liquidity crisis, the interest rates are pushed up and then a solvency crisis occurs. Furthermore in the EMU financial markets are strongly integrated thus when a bad equilibrium is forced on some member countries, financial markets and banking sectors in other countries enjoying a good equilibrium are also affected (strong spillover effects in the eurozone). These externalities are a strong force of instability that can only be overcome by government action (De Grauwe, 2011).

Under fixed exchange rate regime a fixed exchange ratio between the national and a foreign currency is established as it is the case in Latvia. The exchange rate can fluctuate around its central parity and the central bank has legislative powers to intervene on the financial markets in order to influence it.

Under Currency board monetary regime plays the role of system internal anchor (institution) and the EU plays the role of external anchor (institution) that together coordinate the expectations and behavior of economic agents. Thus, especially after EU accession economic agents in the Baltic states and Bulgaria have undertaken more riskier activities and private foreign debt have risen to over 100% of GDP in the period before the global financial and economic crisis.

Regarding the accumulation of public debt things seem quite different. Money supply in the economy is limited to the changes in foreign reserves because of the legislative requirement to maintain 100% coverage of monetary base with the reserve currency. National currencies of the Baltic states and Bulgaria are bound with the euro by fixed exchange rates. Currently budgetary constraints exist in Lithuania and Bulgaria for all the economic agents and they themselves have to bear the costs from their activities. Continuous budget deficits and increase in sovereign debt is dangerous as it may lead to foreign reserves losses and accumulation of high current account deficits. The maintenance of budget deficits and current account deficits (the so-called twin deficits) may cause currency crisis, devaluation of the national currency and collapse of the monetary regime. The problem is that debt in foreign currency should be paid by an increased amount of national currency thus the swirl of public expenditure is enhanced with higher debt payments. In fact national governments could not rely on and use fiscal policy for achieving political purposes. The reason is that they could not be financed by the central bank which is one of the key principles of the operation of Currency boards. Respectively, hard currency regime in Baltic States and in Bulgaria enhances discipline in the public finances and the public sector, concentrating activities and risks in the private sector.

The European insurance model could be also applied for these eurozone candidate countries and particularly when they enter the monetary union (Nenovky, Villieu, 2011). Currently the applied monetary regime in Lithuania and Bulgaria acts as an internal anchor and EU membership as an external anchor which coordinate the expectations and behavior of economic agents. These two anchors have two main effects on them: disciplinary and credibility effect.

Before the crisis: Expansionary fiscal policy in South Europe vis-à-vis budgetary discipline in Eastern countries

Sincejoiningthemonetaryunionnationalgovernmentshavecommittedthemselvestoac hieving economic goals (higher growth, employment rate and welfare). In most of the southern European countries (except for Spain) government expenditure rose and governments increased redistribution through the budget. During the period 2002-2007, Greece and Italy have recorded the highest government expenditure ratios in the eurozone reaching about 50% of GDP in 2006 and 2007.

Table 1: Government expenditure in the Southern Europe and Ireland as % GDP (2002-2013)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Greece	45.1	44.7	45.5	44.6	45.3	47.5	50.6	54	51.4	52	54.8	59.2
Ireland	33.5	33.2	33.6	33.8	34.4	36.8	43.1	48.6	66.1	48.1	42.1	40.5
Italy	47.1	48.1	47.5	47.9	48.5	47.6	48.6	51.9	50.4	49.9	50.6	50.5
Portugal	43.1	44.7	45.4	46.6	45.2	44.4	44.8	49.8	51.5	49.4	47.4	50.1
Spain	38.9	38.4	38.9	38.4	38.4	39.2	41.5	46.3	46.3	45.2	47	44.3

Source: Eurostat

The main reason for this upward trend was that governments believed that they could spend and accumulate more debt because the ECB and the advanced economies would bail them out if needed. Political goals have dominated in the execution of national budgetary policies. Investors have bought debt issued by imprudent governments and banks have led expansionary credit policy that caused the credit boom and disproportions in allocation of resources and welfare at the European periphery.

In the Baltic States and Bulgaria opposite trends in fiscal balances have been observed during the period 2002-2007. Government expenditure in these countries has been less than 40% of GDP and redistribution through the budget was smaller than that in the Southern countries. National governments have executed prudent fiscal policy in accordance with the monetary regime principles. Thus, state intervention in the economy has been constrained and public sector development has been more insignificant to that in many eurozone member states.

Table 2: Government expenditure in the Baltic states and Bulgaria as % of GDP (2002-2013)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bulgaria	39.6	39.1	38.6	37.3	34.4	39.2	38.4	41.4	37.4	35.6	35.7	38.3
Estonia	35.8	34.8	34	33.6	336	34	39.7	45.5	40.7	38.3	40.5	38.9
Latvia	36	34.9	35.9	35.8	38.3	36	39.1	43.7	43.4	38.4	36.5	35.7
Lithuania	34.6	33	33.2	33.2	33.5	34.6	37.2	44.9	42.4	38.9	36.2	35.5

Source: Eurostat

From the start of the EMU budgetary discipline in many eurozone countries (even in Germany and France) have been spoiled and governments have constantly increased budget deficits. Since 2002 Greece, Portugal and Italy have recorded continuous excessive budget deficits while Spain and Ireland have kept their deficits under the ceiling of 3% of GDP.

Table 3: Government deficit/surplus in the Southern Europe and Ireland as % of GDP (2002-2013)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Greece	- 4.8	- 5.6	- 7.5	- 5.2	- 5.7	- 6.5	- 9.8	- 15.6	-10.7	- 9.5	- 10	- 12.7
Ireland	-.0.4	0.4	1.4	1.7	2.9	0.1	- 7.4	- 13.9	- 30.8	- 13.4	- 7.6	- 7.2
Italy	- 3.1	- 3.6	- 3.5	- 4.4	- 3.4	- 1.6	- 2.7	- 5.5	- 4.5	- 3.8	- 3	- 3
Portugal	- 3.4	- 3.7	- 4	- 6.5	- 4.6	- 3.1	- 3.6	- 10.2	- 9.8	- 4.4	- 6.4	- 4.9
Spain	- 0.2	- 0.3	- 0.1	1.3	2.4	1.9	- 4.5	- 11.2	- 9.7	- 9.4	- 10.6	- 7.1

Source: Eurostat

During the same period Estonia and Bulgaria have registered budget surpluses and accumulated fiscal buffers that later helped them to soften its negative impact on their economies. In Latvia and Lithuania budget deficits have been lower than those in Southern Europe. The fixed exchange rates and Currency boards have had a disciplinary effect on national authorities.

Table 4: Government deficit/surplus in the Baltic states and Bulgaria as % of GDP (2002-2013)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bulgaria	- 1.2	- 0.4	1.9	1	1.9	1.2	1.7	- 4.3	- 3.1	- 2	- 0.8	- 1.5
Estonia	0.3	1.7	1.6	1.6	2.5	2.4	- 2.9	- 2	0.2	1.2	- 0.3	- 0.2
Latvia	- 2.3	- 1.6	- 1	- 0.4	- 0.5	- 0.4	- 4.2	- 9.8	- 8.1	- 3.6	- 1.2	- 1
Lithuania	- 1.9	- 1.3	- 1.5	- 0.5	- 0.4	- 1	- 3.3	- 9.4	- 7.2	- 5.5	- 3.2	- 2.2

Source: Eurostat

In the period 2002 -2007 the accumulation of high budget deficits in many eurozone countries has resulted in continuous increase in sovereign debt levels in the EMU. In 2002 the sovereign debt level was 68% of GDP and in 2007 reached 70.2% of GDP. Greece and Italy have been executing expansionary fiscal policy and have registered high public debt levels before the crisis exceeding the limit of 60% of GDP. In Spain and Ireland public debt levels have been lower but the credit boom and the inefficient investments have contributed to the accumulation of macroeconomic imbalances. Moreover this immense credit market has been supported by the expansionary monetary policy of the European Central Bank until 2008. Thus. euro adoption in Southern countries has played a positive role for regional inequalities and consequently led to the need for more state intervention (Claus, 2012).

Table 5: Government debt in the Southern Europe and Ireland as % of GDP (2002-2013)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Greece	101.7	97.4	98.6	100	106.1	107.4	112.9	129.7	148.3	170.3	156.9	175.1
Ireland	32	30.7	29.5	27.3	24.6	25.1	44.5	64.8	92.1	106.4	117.6	123.7
Italy	105.4	104.1	103.7	105.7	106.3	103.3	106.1	116.5	119.3	120.8	127	132.6
Portugal	56.8	59.4	61.9	67.7	69.4	68.4	71.7	83.7	94.0	108.3	123.6	129
Spain	52.6	48.6	46.3	43.2	39.7	36.3	40.2	53.9	61.5	69.3	84.2	93.9

Source: Eurostat

On the contrary in the Baltic States and Bulgaria downward trends in sovereign debt levels have been observed. After 2002 their public debt has decreased and most substantially in Bulgaria (more than 2 times). In 2007 Estonia had the lowest public debt in the EU27 and Bulgaria only 17.2% of GDP. The conservative and prudent fiscal policy have played a crucial role for their economic development and catching up with the advanced EU economies. The operation of Currency boards has enhanced national currencies' credibility thus supporting investments, growth and welfare.

Table 6: Government debt in Baltic states and Bulgaria as % of GDP (2002-2013)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bulgaria	52.4	44.4	37	27.5	21.6	17.2	13.7	14.6	16.2	16.3	18.5	18.9
Estonia	5.7	5.6	5	4.6	4.4	3.7	4.5	7.2	6.7	6.2	10.1	10
Latvia	13.6	14.7	15	12.5	10.5	9	19.8	36.9	44.4	41.9	40.7	38.1
Lithuania	22.2	21	19.3	18.3	17.9	16.8	15.5	29.3	37.9	38.5	40.7	39.4

Source: Eurostat

Budgetary positions and fiscal trends in the Baltic states and Bulgaria could also be explained by the national euro adoption strategies. One of the leading political priorities after EU accession was to achieve full membership in the EMU as soon as possible. Prudent fiscal policy and sound public finances are an integral part of the euro adoption requirements. In comparison to Greece, Portugal and Italy the Baltic states and Bulgaria have fulfilled the Maastricht criteria for government budgetary position during the pre-crisis period.

Challenges to budgetary positions and sovereign debt during the crisis

The beginning of the global financial and economic crisis caused an external shock in the system that led to the increase in public and private financing for Greece and Portugal because the guarantees disappeared. Debt crisis started when financial markets participants and investors lost confidence in public finances of Southern countries. Market participants stopped believing in national and supranational authorities and the financial and economic crisis transformed itself into a crisis of confidence. Long term government yields of Southern countries and Ireland jumped. Greek government was the first that declared insolvency and was backed by the EU and IMF in the spring of 2010. Later Ireland and Portugal needed financial support from the international creditors.

After the crisis hit the economies government expenditure in Southern Europe and Ireland grew up rapidly. National governments bailed out financial sectors, guaranteed their debt, nationalized banks. They supported larger public sectors as they increased spending. Government revenues diminished substantially and social spending rose because of the high unemployment rates. In 2010 government expenditure in Ireland jumped to 66% of GDP because of the banking sector bail-outs. In Greece public spending reached 54% of GDP in 2012. The IMF analysis proves that financial sector support have contributed to the piling up of sovereign debt in Greece, Ireland and Spain respectively augmenting it to 19.7% of GDP, 40.5% of GDP and 7.3% of GDP (IMF, 2013).

Lower government revenue and higher public expenditure contributed to the accumulation of budget deficits and public debt in many countries swelled. Budget deficits increased and have been much higher than in the Baltic states and Bulgaria. In Ireland it exceeded 30% of GDP in 2010 and in Greece 15% of GDP in 2009. In 2013 they still remained a few times over the 3% ceiling.

Sovereign debt burden in Greece amounted to 170.3% of GDP in 2011 and that of the eurozone was close to 90% of GDP. Public debt in Southern Europe kept its upward trend in 2013 and is expected to rise further in 2014 (European Commission, 2013).

The biggest holders of public debt of Southern countries are the local banks. In the end of 2011, the Spanish banks owed about 155 175 billion euro of national government debt. The Italian government debt owed by local banks reached 150 636 billion euro. German and French banks have possessed the greatest exposures to the Spanish and Italian public debt (Wignall, 2012).

The global financial and economic crisis and the EMU crisis had a strong negative impact on budgetary positions and economic development of the Baltic states and Bulgaria. The situation in the eurozone has significantly influenced the financial and real sectors. The main reason is that national economies are highly integrated to these in the EU. In times of crisis fixed exchange regimes and Currency boards are considered to be more fragile than other regimes.

In the Baltic States and Bulgaria government spending rose rapidly in 2009 and then a downward trend has been recorded. Budget surpluses and buffers in Estonia and Bulgaria melted down and budgetary positions worsened. Public debt in the Baltic states and Bulgaria also augmented. Estonia and Bulgaria have had the lowest sovereign debt to GDP in the EU27. In 2012 public debt of the Bulgarian government was 18.5% of GDP and that of the Estonian government amounted to 10% of GDP. Nevertheless, there is no debt crisis in the Baltic states and Bulgaria. Governments have continued to executing restrictive fiscal policy since the crisis started. Furthermore Bulgaria, Lithuania and Latvia have been among the few EU 27 countries that have implemented austerity programs in practice. National governments have decreased spending and cut taxes while most of the EU Member States have taken just opposite measures (Melchiorre, 2013).

For the purpose of this article it is also important to analyze public sector debt held by residents and nonresidents. This is essential because when interest rates rise, governments should transfer resources abroad and this leads to loss of welfare in the country. Inside the eurozone this fact should be considered because EMU Member States could not devalue their currency in order to stimulate exports and service their debt. Southern countries have to decrease their deficits because they lack foreign capital in the crisis. There is a strong relationship between the risk spread and the amount of foreign debt in the eurozone countries that have had high current account deficits after euro adoption. Eurozone crisis is a foreign debt crisis. When the current account turns into surplus the pressure from the financial markets will diminish and this will help these countries to regain their fiscal sovereignty (Gros, 2013).

During the crisis foreign public debt of Southern countries has increased most substantially in Ireland and Greece. In 2012 Greece nonresident holding of sovereign debt amounted to 68.2% of total public debt. In Ireland it was about 64% of total government debt and in Portugal 60% of it.

Table 7: Nonresident holding of government debt in Southern Europe and Ireland as % of total public (2010-2012)

	2010	2011	2012
Greece	61.5	75.5	68.2
Ireland	59.4	83.1	63.9
Italy	47	49	35.1
Portugal	66.1	63.3	60.4
Spain	49.6	41.6	29.0

Source: IMF

In the other group of countries Latvia and Lithuania have had the highest amount of nonresident holding of government debt because of the loans provided by international creditors. In 2012 Bulgaria had the lowest foreign public debt to the total sovereign debt.

Table 8: Nonresident holding of government debt in Baltic states and Bulgaria as % of total public (2010-2012)

	2010	2011	2012
Bulgaria	43.6	43.1	47.2
Lithuania	74.6	71.3	90.6
Latvia	81.2	79.8	86
Estonia	86.8	41	70

Source: IMF

The main challenge governments with high financing needs are facing is related to debt service especially in the context of continuous recession in Southern Europe. In this situation it could be expected that in the next years Southern countries will become more indebted to the IMF and advanced economies.

Long term government bond yields and debt maturity have an important impact on debt service. In the period august 2012 - july 2013 long term government bond yields of Greece and Portugal have been much more higher than those in the eurozone dispite the downward trend.

Table 9: Long term government bond yields in the eurozone, South Europe and Ireland (2012-2013)

	2012 M08	2012 M09	2012 M10	2012 M11	2012 M12	2013 M01	2013 M02	2013 M03	2013 M04	2013 M05	2013 M06	2013 M07
Greece	24.34	20.91	17.96	17.2	13.33	11.1	10.95	11.38	11.58	9.07	10.07	10.53
Ireland	5.91	5.28	4.77	4.59	4.67	4.18	3.78	3.83	3.78	3.48	4.02	3.88
Italy	5.82	5.25	4.95	4.85	4.54	4.21	4.49	4.64	4.28	3.96	4.38	4.42
Portugal	9.89	8.62	8.17	8.32	7.25	6.24	6.4	6.1	6.15	5.46	6.30	6.87
Spain	6.58	5.91	5.64	5.69	5.34	5.05	5.22	4.92	4.59	4.25	4.67	4.67
Eurozone	3.93	3.7	3.49	3.39	3.09	3.03	3.13	3.01	2.79	2.66	3.02	3.07

Source: Eurostat

Long term government bond yields of Lithuania, Latvia and Bulgaria have been very close to that in the eurozone and local governments have been financing themselves at a lower price than these in South Europe. In this respect the main challenge for the Baltic states and Bulgaria is to keep the markets' credibility in public finances and that could be achieved only by the execution of prudent fiscal policy.

Table 10: Long term government bond yields in Lithuania, Latvia and Bulgaria (2012-2013)

	2012 M08	2012 M09	2012 M11	2012 M12	2013 M01	2013 M02	2013 M03	2013 M04	2013 M05	2013 M06	2013 M07	2013 M08
Bulgaria	4.28	3.8	3.39	3.22	3.44	3.27	3.25	3.54	3.47	3.36	3.40	3.46
Latvia	4.45	3.92	3.52	3.32	3.24	3.21	3.22	3.17	3.15	3.10	3.17	3.25
Lithuania	4.84	4.53	4.32	4.11	4	3.97	4.06	4.15	3.95	3.54	3.54	3.54

Source: Eurostat

Moreover when we look at the maturity of government debt in both groups of countries we notice that Bulgaria and Estonia have had the lowest ratio of short term government debt to the total public debt during the period 2007-2012. In 2012 Spain and Portugal had the highest levels of short term government debt to the total sovereign debt respectively 8.6% and 11.3%. In Bulgaria it was only 0.1% and in Estonia 0.6% of the total sovereign debt.

Table 11: Short term government debt in South Europe and Ireland as % of total public debt (2007-2012)

	2007	2008	2009	2010	2011	2012
Bulgaria	0,1	0,2	0,2	2,5	2,8	0,1
Estonia	2,2	1,2	1,3	0,7	0,7	0,6
Latvia	7,7	35,9	14,7	9,4	8,4	6,2
Lithuania	2,5	7,9	4,4	6,3	6,0	6,5

Source: Eurostat

Table 12: Short term government debt in Baltic states and Bulgaria as % of total public debt (2007-2012)

	2007	2008	2009	2010	2011	2012
Ireland	19,0	37,4	23,8	8,5	5,5	5,1
Spain	3,0	15,2	17,9	13,2	9,4	8,6
Italy	16,7	17,9	17,1	16,0	15,6	16,5
Portugal	24,9	26,1	24,6	22,6	13,6	11,3

Source: Eurostat

Conclusions

The Baltic States and Bulgaria have been fiscally disciplined and there is no debt crisis in them which could be primarily explained by the applied monetary regime. The fixed exchange rate and Currency board regimes play an important role for fiscal balance and therefore for public debt levels in these countries. Moreover these countries have struggled to integrate into the EU' economy and adopt the euro as soon as possible. Bulgaria and Estonia have accumulated budget buffers before the crisis. During the crisis their deficits and debt levels augmented but national governments have led restrictive fiscal policy. This helped Estonia and later Latvia to fulfill Maastricht criteria and join the eurozone.

Before the crisis Greece and Portugal accumulated high budget deficits and debt levels. In Spain and Ireland, they were lower because national governments executed fiscal balance-oriented policy. During the crisis budgetary positions in the South Europe have further worsened and high debt have become unsustainable as a result of financial sector bail-outs and increased social spending. The existence of the common currency and "an insurance or guarantee fund" in the eurozone makes the key difference between its hardly pegged exchange rates and Currency board. In fact it undermined fiscal discipline in eurozone countries before the crisis. It raised risks and fragility of the Southern countries when the crisis started.

We argue that the combination between constraints stemming from the applied fixed exchange regime (Currency board) and Maastricht Treaty budgetary requirements have led to the fiscal discipline in these four New EU member states and consequently to stronger budgetary positions and sustainable sovereign debt levels even in the crisis. This combination proves for better performance of public finances before and during the crisis than that between euro and its common monetary policy. It is more likely that upon euro adoption governments of Bulgaria and Lithuania will be tempted to use the existing guarantees in the eurozone and spoil the fiscal discipline and their economies and fiscal sectors become more fragile.

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