ISSN 1822-8402 EUROPEAN INTEGRATION STUDIES. 2011. No 5

THE EU SOVEREIGN DEBT CRISIS AND "EUROPEAN BONDS" OPTION

Algis Junevicius, Egidijus Liutkus

Kaunas University of Technology, Institute of Europe

Abstract

After the financial crisis economies with existing deficits usually are in danger to go to default due to uncontrolled borrowing paces. All the members of the European monetary union have violated treaty limits on allowable budget deficits – some of the members have four times larger deficit. Such a development clearly suggests that some countries in European Union might become insolvent, since their net external debt is really large measure to the size of their economies. After financial crisis economies back to the recovery after a period of 3 or 4 years. Therefore economies are shrinking or growing rate is very slight. Due to these processes it is really big challenge to bring these deficits back to satisfactory level. Governments then have to go to the market and ask for additional debt to cover its deficit. These countries, if not aided, will possibly default and will be forced to restructure their debt. This argument is the reason why European Commission and prime ministers of European Union make a lot of play on discussions about present and future sovereign debt issues, not only regarding the certain countries, but the entire EU. The Italian finance minister Giulio Tremonti and Luxembourg's Prime Minister Jean-Claude Juncker, in an article which appeared in the Financial Times on 5 December, launched the proposal to issue the "European bonds". In this paper authors follow this idea and appeal to obvious arguments showing, that "European bonds" would be great cooperation to control Euro zone debt. Also authors consider "European bonds" as a tool to solve EU debt crisis and ensure future financial stability of all EU countries.

The "European bonds" idea is not new. The first one goes back to Jacques Delors in the 1980s. Jacques Delors proposed the issue similar bonds in addition to European Investment Bank loans to finance infrastructure investments, so the initial idea was intended to provide a new debt instrument for financing pan-European infrastructures, but recently "European bonds" idea became the possible measure to overcome present sovereign debt problems.

In the first part authors analyze occasions of sovereign debt crisis - unbalanced sovereign budgets, irrational social and public spending, too high trust of creditors, etc. The second part of the paper is devoted to theoretical assumptions of debt structures development and "debt dilution" phenomenon. Long recognized as a problem in corporate debt, dilution seems to have recently become a significant problem in sovereign debt markets. Debt dilution has undesirable consequences for both debt structures and the amounts and terms at which sovereigns borrow. In the third and fourth part various aspects of "European bonds" are being analyzed. Also the negative and positive consequences are analyzed if "European bonds" proposal would be implemented. Also government deficit, government consolidated gross debt and Long term government bond yields statistics are presented to append the paper findings.

Keywords: Sovereign debt, sovereign debt crisis, debt structuring, "European bonds".

Introduction

This paper explores ideas for implementation of systematic decisions how to structure sovereign debt system in EU and avoid future sovereign debt crisis. The two main difficulties that arise in a framework of "European bonds" are how to ensure further sustainability of EU sovereign debt management (especially for high-debt countries) and how to convince virtuous countries to support the project and make the debt service costs lesser. This paper suggests an approach to deal with those issues, although this area clearly requires further work. While this paper concludes that "European bonds" is a novel approach to improve sovereign debt management that is worthy of further research, it is only a first pass at the issue, and further research is needed before arriving at a definite conclusion. In fact, while "European bonds" could be more beneficial for countries with high debt levels, it may make "European bonds" ideas contradictory to well debt managed countries. In any case it will help to prevent future over borrowing and sovereign debt crisis. Moreover, an overall judgment of "European bonds" would depend on the further development of sovereign debt management decisions of EU institutions.

The pending scientific problem – EU countries sovereign debt is getting higher, so complex solutions are needed to overcome present sovereign debt crisis and restore the trust of Euro as a currency and of all European Union.

The aim of the paper – to analyze the present EU sovereign debt crisis appearance reasons and assess "European bonds" as possible measure to solve EU sovereign debt control problem.

Tasks of the paper:

- To present sovereign debt crisis appearance reasons
- To highlight sovereign debt structure theoretical assumption
- To consider the "European bonds" solution as a tool to solve the sovereign debt control in EU.
- To identify positive and negative "European bonds" features in the context of EU sovereign debt control problem.

The object of the paper – EU sovereign debt control.

Research methods applied – analysis of scientific papers and statistical data.

Sovereign debt crisis: fundamental features

History shows that financial crises are generally followed by sovereign debt crises. In some cases Sovereign debt crisis become the reason of currency crisis. The latter stage is not the case for EU, because of existence of Euro zone and currencies pegging mechanisms. From the sovereign debt crisis point of view some four stages of typical debt crisis appearance could be indentified:

- 1. growing deficit
- 2. growing debt
- 3. downgrades of financial ratings
- 4. default.

The first stage of sovereign debt appearance is deficit growth and it is the outcome from the financial crisis.

During the financial crisis governments spending increases dramatically in attempts to stabilize the financial system and stimulate economic activity. The cyclical income from taxes goes down, but the financial commitment of governments stay mostly unchanged. Social and health affairs, huge and important state infrastructure projects usually can not be stopped on the spot. Therefore fiscal surpluses become deficits. If financial crisis damage banking system and government must borrow huge sums from the market, than it makes situation more difficult. Thereby economies with existing deficits are in danger to go to default due to uncontrolled borrowing paces. All the members of the European monetary union have violated treaty limits on allowable budget deficits - some of the members have four times larger deficit. Even leading economies of the world have all seen their deficits become higher, some of them to record level (Fig. 1).

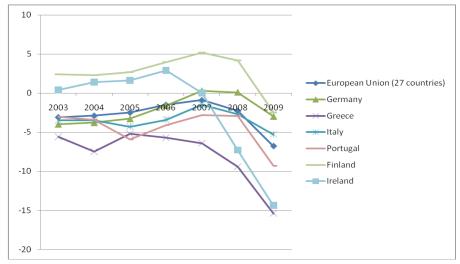


Fig. 1. General government deficits and surpluses (Eurostat, 2011)

The next sovereign debt appearance stage is Growing debt. Almost in every financial crisis economies back to the recovery after a period of 3 or 4 years. It means that government's budget starts to collect more taxes after business and private individuals' starts to receive more profit

and income. Therefore economies are shrinking or growing rate is very slight. Due to these processes it is really big challenge to bring these deficits back to satisfactory level. Governments then have to go to the market and ask for additional debt to cover its deficit. This stage turns into growing debt loads (Fig. 2).

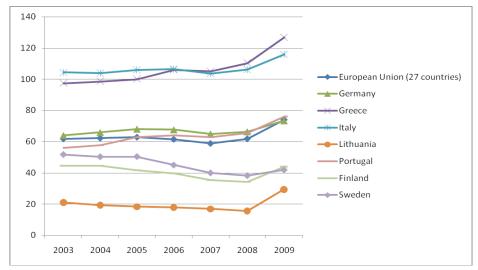


Fig. 2. General government consolidated gross debt as a percentage of GDP (Eurostat, 2011)

That means governments have to cut spending, raise taxes and divert revenues to payoff interest on their debts. Furthermore, because of the worries of default, investors are demanding higher interest payments before they will lend any more money. The risk premium raises rates on assets, such as corporate bonds — meaning companies themselves find it more expensive to borrow. Deep budget cuts, a freeze on public sector wages, pension reforms, increases in fuel taxes. Usually (but not always) when debt reaches 80 percent of GDP, the borrowing costs for governments starts to become higher. Markets become suspicious and suspenseful.

If the second stage mentioned above goes up, than third stage become real, i.e. Downgrades of financial ratings. When deficits and debts rise and economic activity appears to be too weak to solve fiscal problems, the credit worthiness of the government falls under intense scrutiny. This moment every time is fixed by watchful international rating agencies. This stage in short term period is not avoided in every sovereign debt crisis, because the restructuring of countries problems takes at least two years. Even the best rating holders, like Ireland and Spain lost the rating due to decreased trust and believe that countries are able to serve the present and future commitments to markets. If some essential changes in debt crisis decisions will not appear during near future, downgrades are going to be a great trouble (Cole, Kehoe, 2000; Gros, 2010)

Default is the final and most negative stage of financial crisis. Downgrades only make the cycle of weak economic activity and growing dependence on debt. When markets indicate higher risk, the more return will be definitely required. Therefore, the borrowing costs for these troubled countries rise. Then it becomes harder to finance spending needs and harder to finance existing debt. Even huge rescue package committed by the EU and IMF doesn't ensure the long-term solvency of Greece, Portugal and other EU countries. Even Spain, an economy that represents 12 percent of GDP for the euro zone might be next in line for a massive funding request. In this stage deliberate political and financial decision must be enacted to step out from debt crisis (Calvo, 1988; Rich, 2010; Guidotti ,Kumar, 1991).

Theoretical assumptions of debt structures development

In analyzing existing debt structures, two sets of comparisons provide insights into how debt structures might be improved. First, a comparison between debt structures in less advanced countries and advanced economies highlights characteristics that make advanced economies less crisis prone. Compared with advanced economies, less advanced countries find it relatively difficult to issue long-term debt in their own currencies. Greater reliance on short-term and foreign currency debt is associated with a higher frequency of asymmetric shocks and sovereign debt problems. Shortterm debt (or debt indexed to short-term domestic interest rates) is associated with vulnerability to sudden changes in market sentiment: worsening perceptions of the country's creditworthiness can quickly feed into higher interest costs, often leading to vicious circles. Similarly, with relatively large shares of foreign currency debt, depreciations can abruptly render a country insolvent. Only a handful of the largest economies issue debt denominated in their own currency

on international markets, perhaps reflecting in part their economic size and the use of their currencies as a vehicle for international trade. Bonds issued internationally are otherwise relatively homogeneous, usually taking the form of fixed-rate bonds with relatively long maturities. By contrast, the composition of debt issued domestically varies considerably across countries (Missale, 2009; Reinhart, Rogoff, Savastano, 2003).

Less advanced countries' difficulties in issuing long-term local-currency bonds on the domestic market seem to result from deeper problems, such as lack of monetary and fiscal policy credibility (in EU especially for countries not member of Euro zone), and related worries about the possibility of inflation. Regarding debt issued internationally, some international financial institutions (IFIs) have often been among the first parties to issue bonds denominated in the currencies of less advanced countries (usually in combination with exchange rate swaps with emerging market residents that issue in one of the world's main currencies). Opportunities to raise funds at more favorable rates have been, and should continue to be, the primary motivation for the IFIs' involvement in these operations: the IFIs have been able to tap new investor bases interested in holding assets denominated in less advanced currencies but bearing no default risk. This said, contributions to the development of new financial markets that can later be tapped by developing countries are a welcome by product of such funding decisions by the IFIs.

Ideas for Sovereign debt structurising came from the Corporate Context. Explicit seniority partly as a result of contract enforcement issues, sovereign liability structures both in less advanced countries and in advanced economies are not as rich as those of corporations. A notable difference is a lack of an explicit seniority structure, which at the corporate level exists either by statute or through bond covenants. As a result, sovereign creditors tend to be more exposed to "debt dilution" than do their corporate counterparts. Debt dilution occurs when new debt reduces the claim that existing creditors can hope to recover in the event of a default. Long recognized as a problem in corporate debt, dilution seems to have recently become a significant problem in sovereign debt markets. Debt dilution has undesirable consequences for both debt structures and the amounts and terms at which sovereigns borrow. Its adverse effects on debt structure stem from investors' efforts to hold debt forms that are harder to dilute-such as shortterm debt or debt that is costly to restructure. Such instruments in turn make the debtor more vulnerable to crises and render the impact of crises more severe. Dilution also increases the likelihood that highly indebted countries will over borrow. Countries near default may be able to place new debt with investors without facing prohibitive interest rates, as the new creditors effectively obtain a share of the existing creditors' debt recovery value. At low debt levels, the opposite problem may occur, as the possibility of dilution tends to raise interest rates unnecessarily. In principle, debt dilution could be ruled out by an explicit, "first-in-time" seniority structure giving priority to earlier debt issues, because in the event of bankruptcy the original creditors would be repaid first. Firstin-time seniority would tend to reduce borrowing costs at low debt levels, but make borrowing more expensive at high debt levels. In fact, if the probability of a debt crisis were substantial, markets would expect a new debt issue to be

junior to most outstanding debt in the event of a crisis, and thus demand a higher interest rate compared to the present system. The effect on borrowing costs would reward prudent borrowing behavior and discourage over borrowing. Explicit seniority could also improve debt structures by reducing incentives to issue "crisis-prone" debt forms that are hard to dilute. Explicit seniority would also entail risks, however. In particular, an unavoidable consequence of limiting dilution and making new borrowing harder at high levels of debt is that this may prevent some countries from accessing debt markets in situations of illiquidity, in turn increasing the likelihood of liquidity crises. Another potential drawback is that seniority could complicate debt pricing and, as a result, make debt more expensive (at least until markets became familiar with the new system). Uncertainty would be increased by the possibility that sovereigns find ways to circumvent seniority when their borrowing levels are elevated, for example, by obtaining direct bank loans under different jurisdictions or providing collateral for subsequent loans (Borensztein, 2004; Buchheit, Gulati, 1992; Detragiache, 1994).

EU sovereign debt crisis ride out: "European bonds" solution

Recent decisions by European fiscal and monetary authorities, sovereign debt issues continue to destroy the weak economic recovery. Strong-minded and versatile decisions must be formulated to global markets to restore trust in EU (Juncker J. C., Tremonti, 2010; Imarketnews Update, 2010).

The Italian finance minister Giulio Tremonti and Luxembourg's Prime Minister Jean-Claude Juncker, in an article which appeared in the Financial Times on 5 December, launched the proposal of establishing a European Debt Agency (hereinafter – EDA), which should replace the European Financial Stability Facility, when this expires in 2013. Each country through EDA could issue "European bonds" up to 40% of GDP – thus well within the Maastricht reference rate of 60%. It would create, over time, a sovereign bond market of similar size to the US treasury market. As a first step, the EDA would finance 50% of member states' debt issues – but this can be raised to 100% during crises (Fig. 3) (Eurointeligence, 2010).

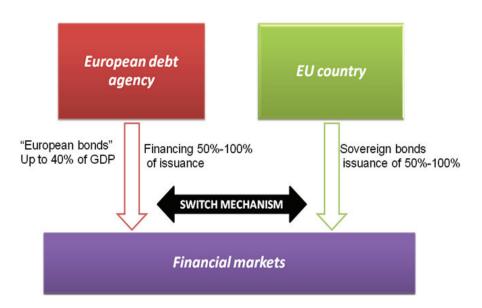


Figure 3. The scheme of "European bonds" operation (made by authors)

The recent proposal has some features "Exchange Offers". The main idea is that the sovereign debtor, threatening to default, proposes to the creditors that they accept "voluntarily" the new bonds in exchange for the existing securities. The new securities are worth less, but are senior relatively to the old ones, as they are given priority in the repayments. If well planned, the offer may be convenient for creditors, who, by accepting it, lose less than they would by refusing and prompting a default. The offer is clearly convenient for the sovereign debtor, since it reduces the value of his debt and allows him to continue to access the international capital markets at reasonable rates. This procedure, however, does not require an international guarantee, as in the case of the Eurobonds. More importantly, the conversion of old into new debt makes sense only if made as soon as possible, i.e. before default (Manasse, 2010).

The second aspect of "European bonds" is the mechanism of the switch between national and "European bonds". This is

the built-in default mechanism (Eurointeligence, 2010).

The conversion rate would be at par but the switch would be made through a discount option, where the discount is likely to be higher the more a bond is undergoing market stress. Knowing in advance the evolution of such spreads, member states would have a strong incentive to reduce their deficits. "European bonds" would halt the disruption of sovereign bond markets and stop negative spillovers across national markets (Juncker, Tremonti, 2010).

This would solve the problem of low liquidity in secondary sovereign market, because during the crisis almost all EU sovereign bonds are not sufficiently liquid (Eurointeligence, 2010).

In the absence of well-functioning secondary markets, investors are weary of being forced to hold their bonds to maturity, and therefore ask for increasing prices when underwriting primary issuances. So far the EU has addressed this problem in an ad hoc fashion, issuing bonds on behalf

of member states only when their access has been seriously disrupted.

A new market would also ensure that private bondholders bore the risk and responsibility for their investment decisions. In this way, the "European bonds" proposal usefully complements recent decisions aimed at providing clarity about a permanent mechanism to deal with debt restructuring. It would help to restore confidence, allowing markets to expose losses and ensuring market discipline. Allowing investors to switch national bonds to "European bonds", which might enjoy a higher status as collateral for the ECB, would help to achieve this. Bonds of member states with weaker public finances could be converted at a discount, implying that banks and other private bondholders immediately incurred the related losses, thus ensuring transparency about their solvency and capital adequacy.

A "European bonds" market would also assist member states in difficulty, without leading to moral hazard. Governments would be granted access to sufficient resources, at the EDA's interest rate, to consolidate public finances without being exposed to short-term speculative attacks. This would require them to honour obligations in full, while they would still want to avoid excessive interest rates on borrowing that is not covered via "European bonds". The benefits from cheaper, more secure funding should be considerable.

A liquid global market for "European bonds" would follow. This would not only insulate countries from speculation but would also help to keep existing capital and attract new flows into Europe. It should also foster the integration of European financial markets, favoring investment and thus contributing to growth.

Ultimately the EU would benefit too. Profits from conversions would accrue to the EDA, reducing effective "European bonds" interest rates. As a result EU taxpayers, and those member states currently under attack, would not have to foot the bill. All these benefits could be extended to member states that remain outside the Euro zone (Juncker, Tremonti, 2010).

From the history point of view the proposal of Giulio Tremonti and Jean-Claude Juncker is not new. The original one goes back to Jacques Delors in the 1980s (Manasse, 2010).

Jacques Delors at that time prospective French Minister of Finances proposed the issue of "Union bonds", whose repayment would be guaranteed by the Community budget, in addition to European Investment Bank loans to finance infrastructure investments in transport, energy and telecommunications. Jacques Delors economic adviser Stuart Holland, has envisaged the issue of Union bonds by a European Investment Fund as a vehicle for the transfer of a substantial share of Member States' national debt to the Union. After such "tranche transfer" member states would continue to service their share of their debt, but at a lower interest rate. Stuart expected the bonds not to count as debt of the member states, by analogy with US Treasury bonds, but because member states would continue to service them that analogy does not hold. Actually the initial idea was intended to provide a new debt instrument for financing pan-European infrastructures (Nuti, 2011).

Nowadays post-financial crisis situation is different, and sovereign debt issues have to be managed. Therefore Giulio Tremonti and Jean-Claude Juncker version is also different

and applied for today's situation. In their opinion new European debt instrument should gradually replace national public debts. But recently IMF is arguing that EU should not concentrate on individual initiatives, but go for a larger programme, because EU economy suffers from systematic problem. German Finance Minister Wolfgang Schaeuble has told that financial markets are currently not speculating against individual EU countries but rather doubt the sustainability of the European Monetary Union as a whole.

"European bonds": a part of systematic viewpoint

Like every decision this likewise has the negative consequences and in this case to the countries, which are debt-disciplined (eg. Germany or Nordic countries). Those EU countries which have rational debt level often emphasize the fiscal discipline and reasonable social policy, which are positions all the EU countries must start with (Eurointeligence, 2010).

Despite negatives no doubt there are few important objectives that "European bonds" would achieve:

- Creation of a bond market comparable, in size and liquidity, to the US Treasury Bill market;
- Switch would be made through a discount option earnings for EDA
- Termination of speculative attacks against sovereign debts in the Euro zone.
- Avoidance of excessive interest rates;
- Governments would be granted access to sufficient resources;

An the other hand new bonds would weaken the market incentives for fiscal discipline, by allowing spendthrift governments to borrow at lower costs, and would penalize virtuous countries, whose borrowing costs would likely rise and this is the moral hazard problem. The opponents of "European bonds" not only mention negatives above:

- The "European bonds" require a fiscal union where high debt countries lose their fiscal sovereignty.
- Recent aid receivers are actually overborrowed and are not able to serve present debt;
- Jointly guaranteed bonds would require "fundamental changes" in European treaties
- Virtuous countries will be penalized and forced to solve problems of irrational spending programs.

Public debt has a positive market value only if those who buy it believe that the state will be able to repay it in the future by running budget surpluses. Current European budget is by no means large enough to repay a debt equal to 40% of European GDP. Either the bonds will have no market, or, if they do, it must be because investors believe that the new bonds will be eventually reimbursed by the budget surpluses of virtuous countries. The main problem is that those countries are actually over-borrowed and are not able to serve present debt. Countries like Greek, Ireland, Portugal, Spain or Italy a decade ago have been implementing social spending programs. From virtuous countries point of view those countries could never afford it. Consequently Germany, France or Nordic countries should not pay high taxes for financing the sovereign debt solutions in European Union (Reuters, 2010; Basevi, 2006).

Given that rates on "European bonds" would reflect perceived risk across the entire EU, German borrowing costs could raise compared to existing benchmark Bunds (Fig. 4).

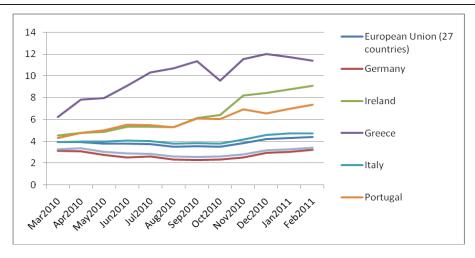


Figure 4. Long term government bond yields (Eurostat, 2011)

Therefore the largest load will be imposed to Germany. It is true that Germany is the main beneficiary of the euro, as the country's export industry benefits from Germany's real devaluation. The argument against this is that Germany's export surplus has increased substantially against non-Euro zone countries, and Germany was a stronger exporter long before the introduction of the euro. The examples of Sweden and Switzerland show that it is possible to maintain a high level of economic strength outside the Euro zone. The problem with the Euro zone is still insufficient flexibility and factor mobility. All in all if the virtuous countries taxpayers have to step each time after a sovereign crisis, it will become increasingly difficult to persuade the virtuous countries like German, Nordic countries to trust euro as welfare guaranty for the economy.

Financial Times associate Editor Wolfgang Munchau recently analyzed recent proposals and attempts to find the universal decisions. In his point of view the sovereign debt crisis is a systematic problem. He also accentuates the EU inability to cope, and this moment has a few dimensions:

- Replay of mistakes the totally wrong decision is solvency of crisis through liquidity policies. During sovereign crisis ECB provided almost unlimited funding, bank guarantees, and the EFSF;
- Lack of co-ordination;
- Breakdown of communication among EU countries and institutions;
- Blaming financial markets;
- Blaming of each other among EU leaders;
- Consistent requirement to the ECB to fix consequences of implementation of irresponsible fiscal and economical policy (Eurointeligence, 2010; Monti, 2010; European council 24/25 March, 2011).

Giulio Tremonti and Jean-Claude Juncker have noticed that if Europe formulates a strong and systemic response to the euro zone debt crisis, than a clear message would be sent to global markets and European citizens of its political commitment to economic and monetary union. Thereby EU needs the systematic approach and attempts to find systematic response to current EU sovereign debt crisis.

Conclusions

Giulio Tremonti's and Jean-Claude Juncker's proposal is probably the single most important proposal ever made since the outbreak of the European sovereign debt crisis. The scheme for a single "European bonds" comes in different sizes and forms, but all proposals have an underlying consideration in common: a "European bonds" would attract a lower interest rate than the average (weighted) interest rate at which nation states could borrow in international markets, because of the lower liquidity premium and the lower credit risk premium.

The funds raised through issues of a single "European bonds" could be channeled to Euro zone member states in various ways: by buying their new national bond issues, or by buying back old national bonds, or by lending to member states against the security of domestic bonds (Nuti, 2011).

Sovereign debt crisis is a cyclical process due to systematic problems (mostly irrational budgeting or large social spending programs). In order to overcome debt crisis EU needs the systematic view and coordination. Therefore Giulio Tremonti and Jean-Claude Juncker in some way have advanced Jacques Delors' idea and applied it as a mechanism of financial stability in EU.

EU politicians and experts acknowledge that "European bonds" could possibly be only the part of whole rescue package and EU should consider more on long range measures as EU crisis solvency mechanisms creation, more tough control from IMF and ECB, larger EFSF program, because the existing EU rescue funds won't be large enough. Increase of EFSF funds is a more likely scenario than the issuance of "European bonds".

The Tremonti-Juncker project is a good idea for financing infrastructure and increasing market liquidity in good times. Yet it requires a large loss of fiscal sovereignty by high debt countries. Because of its timing, it's a bad idea for solving the debt crisis of Europe. Further analysis would also be needed on how to overcome potential legal and practical obstacles to introducing contract-based seniority. Nevertheless, given the potential benefits of explicit seniority for crisis prevention—and other enhancements to bond contracts that would also mitigate debt dilution—this paper calls for further analysis and discussion of the issue.

References

- Basevi G. Un'Agenzia europea del debito pubblico. I mercati finanziari internazionali. Nino Andreatta e la politica economica, a cura di Paolo Onofri, Il Mulino, 2006. p 113-118.
- Borensztein E., Chamon M., Jeanne O., Mauro P., Zettelmeyer J. Sovereign Debt Structure for Crisis Prevention. International Monetary Fund Occasional paper, No. 237, 2004
- Buchheit L. C., Gulati G. M. Sovereign Bonds and the Collective Will. Emory Law Journal. 2002. 51 (4), p 1317-1364.
- Calvo G. Servicing the Public Debt: The Role of Expectations. American Economic Review. 1988. No. 78, p. 647–661.
- Cole H., Kehoe P. 2000, "Self-Fulfilling Debt Crises," The Review of Economic Studies. 2000. Vol. 67, p. 91–116.
- Detragiache E. Sensible Buybacks of Sovereign Debt. Journal of Development Economics. 1994. Vol. 43, p. 317-333.
- European council 24/25 March 2011. Conclusions. Availabe at: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/120296.pdf
- Euro intelligence . Juncker and Tremonti: "E-bonds would end the crisis". Available at: http://www.eurointelligence. com/index.php?id=581&tx_ttnews%5Btt_news%5D=2975&tx_ttnews%5BbackPid%5D=901&cHa sh=6271a389e4
- Eurostat. Available at: http://epp.eurostat.ec.europa.eu/portal/ page/portal/eurostat/home/
- Gros D. The seniority conundrum: Bail out countries but bail in private, short-term creditors? Available at: http://www.voxeu.org/index.php?q=node/5891

- Guidotti P.,Kumar M. Domestic Public Debt of Externally Indebted Countries. IMF Occasional Paper No. 80. 1991.
- Imarketnews. Update: Juncker, Tremonti Propose EU Sovereign Bond Issuer. Available at: http://imarketnews.com/node/23431
- Juncker J. C., Tremonti G. E-bonds would end the crisis. Available at: http://www.ft.com/cms/s/0/540d41c2-009f-11e0-aa29-00144feab49a.html#axzz111G8xJTO
- Manasse P. My name is Bond, Euro Bond. Available at: http://www.voxeu.org/index.php?q=node/5936;
- Missale A. Public Debt Management. Oxford University. 1999.
- Monti M. A new strategy for the Single Market at the service of Europe's economy and society. Report to the President of the European Commission José Manuel Barroso. Available at: http://ec.europa.eu/bepa/pdf/monti_report_final_10_05_2010_en.pdf
- Nuti M. A single European sovereign bond? Pie in the sky, unless... Available at: http://dmarionuti.blogspot.com/2011/02/single-european-sovereign-bond-pie-in.html
- Reuters. Juncker, Tremonti call for joint European bonds. Available at: http://www.reuters.com/article/2010/12/05/ebond-idUSLDE6B40HE20101205
- Rich B. Four Stages Of A Sovereign Debt Crisis. 2010. Available at: http://www.dailymarkets.com/stock/2010/06/21/the-four-stages-of-a-sovereign-debt-crisis/
- Reinhart C., Rogoff K., Savastano M. Debt Intolerance. Brookings Papers on Economic Activity. 2003. No. 1. p 1–74.

The article has been reviewed.

Received in April, 2011; accepted in June, 2011.