

EUROZONE PUBLIC DEBT PROBLEM: AN ANALYSIS FROM THE PERSPECTIVE OF THE INSTITUTIONS AND POLICIES

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Abstract

Based on a synthetic literature review, the present article summarizes the main characteristics of the Eurozone institutional setup and the related economic and political incentives that drive Eurozone governments to increase their public debts, disregarding the limits agreed in the European treaties. We propose a theoretical and qualitative approach, taking into account the general features and the nature of Eurozone institutional setup. The second and third part of the paper contains a review of the Eurozone institutional setup and its role in sovereign debt problem of Euro area while the fourth part of the paper carries out a concise analysis of some proposed strategies and policy tools to fight Eurozone debt problem: ECB bond buying, EFSF/ESM leverage, Eurobonds and Euro-TARP.

Keywords: *public debt, fiscal union, Eurobonds, ECB bond buying, Euro-TARP*

JEL Classification: H6, H63, H69, H7, H74, H77, H81, H87

Introduction

Real insight regarding the Eurozone public debt crisis can be acquired analyzing the underlying institutional setup of Euro area and the incentives it creates for the member states' governments to increase their deficit spending. Explicit rules specified in the Maastricht Treaty and the Stability and Growth Pact (SGP) require limits of government budget deficits and public debts (3% of GDP budget deficit and 60% of GDP public debt). The history of breaches of Maastricht Treaty and SGP indicate that all these formal requirements proved powerless to curb the Eurozone governments' incentives of incurring in excessive deficits and debts. Moreover, although Maastricht Treaty contains an explicit "no-bailout" clause that was designed to prevent Eurozone countries from being liable for the debts of other member states¹, nevertheless the "no-bailout" clause was ignored in the case of Greece bailout and also in case of other countries of Eurozone that received financial assistance in the context of Eurozone debt crisis.

Most of the solutions suggested and supported currently in EU to counter the effects of the Eurozone debt crisis imply increased centralization at the EU level – in terms of fiscal union, banking union and even political union. Although the implementation of a fiscal union in the Euro area is presented as a way to save the euro and to overcome the sovereign debt crisis, nonetheless there are no reasons to believe that the debt problem of Euro area will be solved as long as the socialization of risks and losses across Eurozone remain possible. Historical studies suggest that the "no bailout" clause is crucial for well-functioning fiscal unions or federations. For example, Bordo, Jonung and Markiewicz studied five historical cases of fiscal unions or federations and concluded that "fiscal discipline has been obtained through several techniques: explicit or implicit no-bailout clauses, constitutional restrictions,

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¹ Article 104b of the Treaty on European Union (or Article 125 of „Consolidated Version of the Treaty on the Functioning of the European Union”).

and discipline exercised by financial markets for government debt”. They explained that “without a strict and credible no-bail out clause, the financial market mechanism is likely to fail as an efficient disciplining device on fiscal policy” (Bordo, Jonung & Markiewicz, 2011). In spite of this, the advocates of the fiscal union in EU propose additional strategies and mechanisms of socialization of risks and losses across Eurozone countries, weakening or canceling the effect that market discipline naturally impose on banks, governments or other agents.

The main idea defended in this article is that reckless disregard of the formal rules concerning public debts limits showed by some of the Eurozone member states is close related to the underlying institutional setup of the Eurozone. Credible commitment to a “no bailout” clause and real compliance with Maastricht Treaty and SGP conditions require a match between the underlying institutional setup of Eurozone and the formal requirements regarding debts limit. Consequently, the first step in solving Eurozone debt problem must consists in dismantling all the mechanism of debt rollover and also in cutting off the socialization of risks and losses across Euro area.

Based on a synthetic literature review, the present article summarizes the main characteristics of the Eurozone institutional setup and the related economic and political incentives that drive Eurozone governments to increase their public debts, disregarding the limits agreed in the European treaties. We propose a theoretical and qualitative approach, taking into account the general features and the nature of Eurozone institutional setup. The first and second part of the paper contains a review of the Eurozone institutional setup and its role in sovereign debt problem of Euro area while the third part of the paper carries out a concise analysis of some proposed strategies and policy tools to fight Eurozone debt problem: ECB bond buying, EFSF/ESM leverage, Eurobonds and Euro-TARP.

1. The Underlying Institutional Setup of the Eurozone and Sovereign Debt Problems of the Member States

In order to explain and identify the incentives of Eurozone governments to increase government deficits and public debts over the agreed limits of Maastricht Treaty or SGP, Philipp Bagus used the concept of the *tragedy of commons* – coined by Garrett Hardin – and conceived it as a special case of the external costs problem.¹ As Ph. Bagus analysis demonstrates, this concept of the *tragedy of commons* can be successfully applied in order to explain the external costs arising from the fact that the institutional setup of the Eurosystem in the EMU is such that all Eurozone governments can use the ECB to finance their deficits.

How exactly these external costs arise, given the institutional setup of Eurozone? It is a common practice for governments to issue bonds when spending is greater than tax revenue. Government bonds are usually bought by banks, given the fact that the central banks accept them as collateral for loans to the banking system. Thus, banks’ purchases of government bonds enable them to expand credit on their turn and also to buy further new government bonds. In a fractional reserve banking systems, the concrete result of this practice is a process of bank credit creation that is directed toward crediting governments. Moreover, beyond this common practice in contemporary economies, there is the peculiar characteristic of Eurozone institutional setup: one currency and many fiscal authorities. Technically, under such institutional setup, European Central Bank (ECB) can finance the deficits of Eurozone governments either directly by buying government bonds or indirectly accepting them as collateral for loans to the Eurozone banking system. The first route (ECB bond buying) was

¹ External effects appears when proprietors do not assume the full advantages or disadvantages of using property, because of poorly defined or poorly defended property rights.

not commonly used but it was only exceptionally admitted during the Eurozone debt crisis¹. The second route of financing Eurozone government deficits *via* ECB is more subtle and it is commonly used by Eurozone governments, given the ECB and national central banks acceptance of Eurozone government bonds as collateral for loans.

Therefore, given the practice of fractional reserve banking and bank credit creation and also, given the peculiar institutional setup of Eurozone, the costs of increasing the deficit in one of the Eurozone countries is undertaken by all users of euro currency in the form of reduced purchasing power of the monetary unit. In conclusion the costs of increasing deficits and public debts in one of the Eurozone countries can be externalized and consequently there are clear incentives for Eurozone governments to permanently increase their deficits, as the cost of this increase is supported by all other countries using euro²:

“The tragedy of the Euro is the incentive to incur higher deficits, issue government bonds, and make the whole Euro group burden the costs of irresponsible policies—in the form of the lower purchasing power of the Euro.[...] With such incentives, politicians tend to run high deficits. Why pay for higher expenditures by raising unpopular taxes? Why not just issue bonds that will be purchased by the creation of new money, even if it ultimately increases prices in the whole of the EMU? Why not externalize the costs of government spending?” (Bagus 2010, p. 91)

The *tragedy of commons* is a concept or model employed to explain cooperation failures in situations when agents can externalize costs and retain benefits of their actions. *Moral hazard* is another concept that approximates more or less the same type of problem: it refers to the tendency that one may have to take more risks given the fact that the costs of his action will not be endured by the ones who assumed the risks³. For example, the Eurozone governments may be prone to take more risks (increasing their deficit spending) than they would normally take if the related economic and social costs were incurred only by high deficits countries. Both approaches – i.e. tragedy of commons and moral hazard – have in common the fact that they take into account the incentives of agents involved.

It is worth noting that ideal cases of *tragedy of commons* or *moral hazard* described in theory may not be encountered in real life situations. For example, in the case of Eurozone government's high deficits problem there are several possible limitations on the incentives to increase deficits. Ph. Bagus identified six such possible limitations that may be encountered in practice: (1) banks may not buy government bonds and use them as collateral if interest rate offered for the government bonds are not high enough in comparison with the interest rates they pay for loans from the ECB; (2) the default risk on governments bonds may also determine banks to act prudently; (3) the ECB may require a minimum rating for banks to be accepted as collateral; (4) the liquidity risk involved for banks using the ECB to refinance themselves by pledging government bonds as collateral; (5) haircuts applied by the ECB on the collateral that not allow for full refinancing; (6) the fact that ECB may not accommodate all demands for new loans for banks. (Bagus 2010, pp. 88-90)

The fact that the entire process of financing government deficits took place *indirectly* through the banking system explains indeed why the Eurozone government “borrowing race” encountered limits. But at the same time, a tendency to bypass or neutralize such limits may

¹ The independence of the ECB and the national central banks (NCBs) of the Eurosystem has been given "constitutional" status, as it has been set down in both the Treaty on the Functioning of the European Union and the Statute of the European System of Central Banks (ESCB Statute).

² This paragraph is a very concise reconstruction of the Philip Bagus's argument of the tragedy of commons applied to the Eurozone chapter 8 of the *Tragedy of the Euro* (Bagus 2010).

³ For a detailed analysis of the moral hazard concept see (Hülsmann 2006, 2008).

be observed. First, highly indebted countries benefitted from the implicit guarantees of more sound countries when joined Eurozone and consequently buyers of debt securities considered the risk of default on governments bonds to be insignificant. Countries like Greece and Italy – which had high public debts when they joined Eurozone (over 60% debt limit imposed by Maastricht Treaty) – borrowed money almost at the same interest rate as Germany which was sounder and relatively more competitive than the majority of the Eurozone economies of the Southern Europe. Second, it was noticed the Eurosystem inelasticity to risk regarding Eurozone governments bonds: NCBs & ECB accepted as collateral all debt securities of Eurozone countries, including risky debt securities issued by GIIPS¹ countries. Further, as we shall see in the following sections of the article, the Eurobonds and other proposed strategies to solve sovereign debt problems imply the obliteration of the differences between the more risky and less risky debt securities (i.e. GIIPS countries and non-GIIPS countries debt securities) and therefore easy access to new funds for highly indebted Eurozone governments.

2. TARGET2 system and its role in sovereign debt crisis

TARGET2² system is the interbank payment system for the real-time processing of cross-border transfers throughout the European Union.

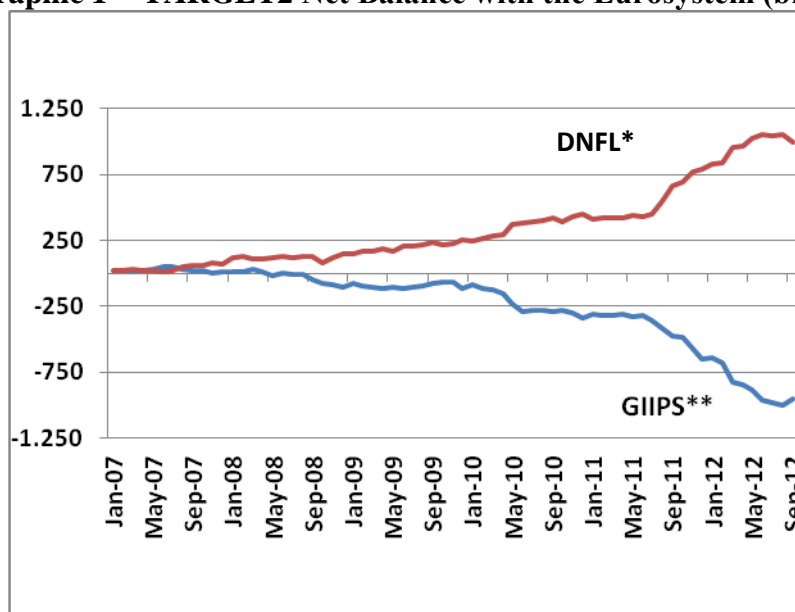
A recent theoretical controversy related to the operation of this system raises questions about the effects it produce in the Eurosystem. A detailed analysis of TARGET2 system is performed by the economist Peter Garber, in a special report of Deutsche Bank (Garber 2010) and resumed later by other economists and analysts, like Stefan Homburg, head of public finance Leibniz University of Hannover (Homburg 2012), Hans-Werner Sinn, President of the Ifo Institute for economic Research in Munich (Werner-Sinn & Wollmershaeuser 2012), Philipp Bagus (Bagus 2012) and others. Among the problematic effects that are reported regarding the TARGET2 system is the indirect monetization of government deficits and socialization of risk involved in the process (Bagus 2012). Stefan Homburg also stresses that TARGET2 system led to a "liability union". He emphasized that it was not established from the outset the periodical adjustment of TARGET2 balance and that NCB and BCE accepted as collateral for loans without differentiation all Eurozone governments bonds.

The way TARGET2 system function allows any of the Eurozone countries to automatically draw vast credit from the rest of Eurozone members *via* ECB in the case of capital flight (Garber 2010). It permits basically unlimited financing of current account deficit and during the crisis it functioned as a hidden bailout mechanism for countries like Spain, Greece and other countries with high current account deficits (Homburg 2012, Werner-Sinn 2012, Bagus 2012). TARGET2 debits represent debt of companies and governments TARGET2 accumulated imbalances between the banks in the Eurozone mainly in the context of the financial crises, given the fact that since 2007 interbank market did not functioned properly. In October 2012, Germany credit via TARGET2 system was 719 billion euros (while at the end of 2011 it attained 463 billion euros), Spain debit was 380 billion euros and Italy debit, 266 billion euro. Since the beginning of the financial crisis, Eurosystem/TARGET2 net balance indicates a progressive accumulation of claims in particular by Germany, Netherlands and Luxembourg and debits by countries like Spain, Italy, Greece, Ireland and Portugal (Graphic 1).

¹ GIIPS – Greece, Italy, Ireland, Portugal, Spain.

² TARGET - Trans-European Automated Real-time Gross Settlement Express Transfer System.

Graphic 1 - TARGET2 Net Balance with the Eurosystem (bn €)



Source: Euro Crisis Monitor, Institute of Empirical Economic Research, Osnabrück University

* DNLF = Germany, Netherlands, Luxembourg, Finland

**GIIPS = Greece, Italy, Ireland, Portugal, Spain

Ph. Bagus (2012) illustrates the role of TARGET2 system in Eurozone public debt accumulation and trade deficits using an example: a Spanish agent buys an asset from Germany (import). At the beginning, the trade deficit may be financed by loans from German banks to Spanish banks, but after some time the Spanish banks will run out of good collateral. The increasing government debts and also the over indebtedness of the private sector reduce the quality of Spanish debt as collateral. At some point, private investors do not want to continue to finance Spanish banks (and Spanish trade deficit) because they do not have any more good collateral. Yet by TARGET2 system, Spanish banks can use bad collateral (Spanish) and refinance with the Bank of Spain, which accepts Spanish bonds as collateral for new loans. TARGET2 debits to the ECB increase. Risks are shifted to the Eurosystem and socialized. The trade deficit is financed *via* TARGET2 through public central bank loans (Bagus 2012).

General conditions and key factors involved in the way TARGET2 system contributed to the public debts accumulation and to the increase of trade deficits in GIIPS countries are the following:

1. Fractional reserve banking that allows bank credit creation directed toward crediting governments;
2. Inelasticity to risk of Eurosystem: NCBs & ECB accept risky debt securities as collateral for loans;
3. No date established for TARGET2 credit and debit to be settled as it is the case with FED in USA, for example; as a result credit and debits accumulates indefinitely.

3. Strategies and Policy Tools Applied or Proposed in Order to Counter the Eurozone Debt Crisis

3.1. ECB Bond Buying

ECB intervened on several occasions on the market, not only as a lender of last resort for banks in the Euro area but also for Eurozone governments on the brink of bankruptcy. Traditionally, the ECB did not buy government bonds directly, but this has changed when Eurozone debt crisis erupted; the ECB intervened directly in order to reduce the cost of refinancing the Eurozone highly indebted governments. The ECB has developed programs of direct bond purchase of Euro area countries in the period 2010-2012:

- June 2009 - *Covered Bond Purchase Programme*: ECB bought bonds with a total nominal value of 60 billion euros, which will be held by ECB until maturity.
- May 2010 - ECB launched *Securities Markets Programme (SMP)*,
- November 2011 - *Covered Bond Purchase Programme 2*, which aimed to buy till October 2012 bonds with a total nominal value of 40 billion euros.
- August 2012 - *Outright Monetary Transactions (OMT)*

ECB decision to implement the new program (OMT) in August 2012 was not unanimous; the representatives of Germany expressed its opposition. The chief of German central bank, Jens Weidmann and German Finance Minister, Philipp Roesler, voiced their opposition to the ECB plan to buy bonds of troubled member of the Eurozone, arguing that it would reduce the willingness of these countries to implement reforms.

The consequences of the ECB financing of GIIPS public debt are synthetic summarized by Aloys Prinz and Hanno Beck (2012, p. 186), based on a simple theoretical model. In the model, member states are classified in two categories, GIIPS/non-GIIPS; bonds issued by Euro area countries are also classified as GIIPS bonds and non-GIIPS bonds; banks are key players investing in bonds issued by national states, but this model assumes that banks are no longer willing to purchase bonds of GIIPS countries (only to highlight the effects of GIIPS debt financing *via* ECB).

Key issues related with ECB bond buying as a solution to solve GIIPS government debt problem are the following:

- There is no negative feedback loop to limit debt dynamic; therefore ECB balance will be overloaded with GIIPS bonds and ECB will incur losses, requiring recapitalization. There is also a major risk that ECB – trying to avoid a major crisis – to be entirely taken in tow by the fiscal policy of GIIPS countries (Prinz and Beck 2012, 186).
- Highly indebted countries will have access to funds easier than would normally be possible on the market. This fact will lower the pressure for GIIPS countries to reform inefficient state sectors and inflexible labor markets.
- ECB bond buying implies shifting the risks from the level of over indebted countries to the level of the entire Eurozone – which raise a moral hazard problem. The over indebted countries not only that will not have an incentive to reform labor market and inefficient economic sectors or institutions but they will have incentives to continue the deficit spending and public debt accumulation.

3.2. Eurobonds and EFSF/ESM Leverage

Eurobonds are debt securities issued in euros jointly by the 17 Eurozone nations. Their role is to facilitate access to new funds in more advantageous conditions than would be the case on the market for highly indebted Eurozone countries. In November 2011, EC published the *European Commission Green Paper on the Feasibility of Introducing Stability Bonds* (EC 2011), proposing three main approaches for the issuance of Eurobonds, based on the degree of substitution of national issuance (full or partial) and also based on the nature of the underlying guarantee (joint and several/or several):

1. *Full Eurobonds with joint liability.* This option requires the complete replacement of the national issuance of governmental bonds by Eurobonds, each EU member being fully liable for the entire issuance.
2. *Partial Eurobonds with joint liability.* The second option implies that the member states would still issue national bonds to cover the share of their debts beyond a certain percentage of GDP not covered by Eurobonds.
3. *Partial Eurobonds without joint guarantees.* The third option implies also that member states would still issue national bonds to cover the share of their debts but without joint guarantees. Unlike the first two approaches, this would involve "several but not joint" government guarantees.

Eurobonds are not an acceptable solution for the indebted Eurozone states, because on the long term it leads to progressive accumulation of public debts (Prinz and Beck 2012, p. 188). Also, easy access to new funds for highly indebted countries may imply a moral hazard problem: transferring the costs of imprudent policies of GIIPS countries on other countries that have had a more restrictive fiscal policy creates strong incentives for all countries (GIIPS or non-GIIPS) to rely more on borrowing, increasing their public debts. Since the costs and risks of imprudent policies of national states are constantly redistributed to all Eurozone member states, there is no negative feedback loop for limiting the debt spiral in Eurozone (Prinz and Beck 2012, 188).

EFSF leverage means that EFSF could buy GIIPS and non-GIIPS debt securities and then it could use them as collateral for ECB credit. The proposal was made in November 2011, after the euro summit that was held in October 2011. There is a similarity between the proposal to issue Eurobonds and the EFSF/ESM leverage proposal. In both cases GIIPS states are not directly dependent on loans given by banks but instead they are financed by a publicly guaranteed agency. Also in the case of Eurobonds, debt securities of GIIPS and non-GIPS countries are treated as involving the same risk; in the case of leverage of EFSF/ESM, the differences between the debt securities of GIIPS and non-GIIPS countries is kept, but it does not play a role because these securities can be equally used as collateral for ECB credit

Regarding the ultimate consequences, there are no significant differences between the ECB bonds buying of GIIPS countries, on the one hand and Eurobonds and EFSF/ESM leverage on the other hand. In all mentioned cases, high-risk securities will reach ECB balance. The ECB will have to bear the losses and it will need a recapitalization. This will ultimately have a negative impact on all Eurozone states. According to Hanno Beck and Aloys Prinz, the only negative feedback loop that has worked so far in limiting debt accumulation is market discipline – and every policy that loosens this market discipline increases the likelihood of debt explosion (Prinz and Beck 2012, pp. 187-188).

In summary, the key issues related to Eurobonds and EFSF/ESM leverage as strategies to solve Eurozone debt problem are:

- Moral hazard problem: since there is no mechanism to restrict public debt in GIIPS countries in an enforceable way, these countries are confronted with

incentives to borrow excessively either *via* Eurobonds or through the EFSF (Prinz and Beck 2012, pp. 187-188).

- There is no negative feedback loop to limit debt dynamic. Hanno Beck and Aloys Prinz (2012, pp. 187-188) identified that in the case of Eurobonds and EFSF/ESM leverage there are three positive feedback loops encouraging excessive borrowing: (1) GIIPS countries are encouraged to continue excessive borrowing policy since in case of Eurobonds and EFSF/ESM leverage the difference between GIIPS and non-GIIPS debt securities doesn't really matter; (2) the second positive feedback loop that cause debt accumulation is set in motion given the fact that Eurobonds and EFSF bonds are accepted as collateral for ECB credit; (3) the third positive feedback loop will be put in motion in the case when ECB incurs losses and needs recapitalization from the part of all remained solvent countries (non-GIIPS countries).

3.3. Euro-TARP

Euro-TARP (European Troubled Asset Relief Programme) requires using EFSF/ESM funds in order to recapitalize banks holding GIIPS bonds in their balance. It is a solution focused on saving banks than saving countries from default. With the Euro-TARP critical banks will be recapitalized so that they will be able to write-down the sovereign-debt of GIIPS countries without risking too low equity ratios. Aloys Prinz and Hanno Beck believe that the main advantage of Euro-TARP (unlike ECB bond buying, Eurobonds and EFSF/ESM leverage) is that ECB will be isolated from the debt crisis problem of GIIPS states (Prinz and Beck 2012, p. 188).

The main weakness of this proposal is that it involve a transfer of funds from the non-GIIPS countries to GIIPS countries, which means that losses will ultimately be supported by the states which have led a relatively more prudent fiscal policy (more exactly by the taxpayers of these states). Although in the case of Euro-TARP will be isolated from debt crisis (or not affected to the same extent), this strategy does not differ essentially from other types of proposed solutions – ECB bonds buying, Eurobonds, EFSF/ESM leverage – because all of them involve socialization risks associated with the accumulation of new debts. Moreover, the necessary funds EFSF/ESM must provide to banks will lead ultimately to an increase of tax burden for Eurozone countries, with all negative economic effects that are following from this kind of policies.

Aloys Prinz and Hanno Beck admit that without sovereign default, the recapitalization of banks will not work, because banks (and investors) will have the power to force their own bailout by attacking default-threatened countries and demanding high risk premiums so that the respective countries will become unable to refinance their maturing debt at affordable interest rates (Prinz and Beck 2012, p. 188).

In fact, by accepting from the outset, as a solution, the discipline that market naturally impose – i.e. agents undertaking risky business, whatever their role, to fully support the risks and losses involved without appeal to any mechanism or strategy of risk and/or loss socialization – would drastically reduce moral hazard and irresponsible or reckless behavior of investors, bankers and even governments. In the absence of various bailout options, governments will have to remain credible on the bond market.

Key issues related to Euro-TARP strategy are the following:

- Main advantage: ECB will not be involved in GIIPS public debt problem.
- Main weakness: the recapitalization of banks is a form of socializing risk and losses and it will lead ultimately to an increase of fiscal burden in Eurozone countries that sustain EFSF or ESM with funds.

- Sovereign default is required if recapitalization of banks is implemented otherwise the banks will have incentives to attack default-threatened countries in order to gain high risk premium and to force their own bailout.
- If market discipline is accepted from the beginning for all kind of agents and everybody (including banks) would be responsible for the risks and losses involved in their businesses banks themselves will be very cautious in investing in high risk debt securities.

Conclusions

The underlying institutional setup of the Eurozone is such that the costs of increasing deficits and public debts in one country can be externalized to the entire Eurozone. Consequently there are clear incentives for Eurozone governments to permanently increase their deficit spending, as the cost of this increase is supported by all other countries using euro. There are identifiable general conditions and features of Eurozone institutions that intentionally or not favored the process of debt accumulation. Thus, given the practice of fractional reserve banking and bank credit creation and also, given the peculiar institutional setup of Eurozone (one currency and many fiscal authorities), the costs of increasing the deficit in one of the Eurozone countries is undertaken by all users of euro currency in the form of reduced purchasing power of the monetary unit. The inelasticity to risk of Eurosystem – i.e. the fact that GIIPS and non-GIIPS debt securities are equally accepted as collateral by ECB and NCBs for credit – encouraged highly indebted governments to continue deficit spending and weakened the willingness of these countries to reform inefficient economic sectors. Also the fact that imbalances arising from TARGET2 operations can accumulate indefinitely without settlement aggravated the public debt problem of Eurozone countries, especially after 2008 financial crisis.

Moreover, most of the strategies advanced in order to solve the sovereign debt crisis in the Euro area (in the context of a fiscal union or not) – ECB bond buying, EFSF/ESM leverage, Eurobonds, Euro-TARP – involve additional mechanisms and strategies of debt rollover and socialization of risks and losses. Whether or not a fiscal union would be set up, the debt problem will remain unsolved if all these mechanisms of risk socialization persist. In other words, if a fiscal union will be set up in EU without dismantling all intrinsic mechanisms of debt accumulation and risk socialization, we will still be talking of the debt problem of the fiscal union member states.

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