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Aloys Prinz and Hanno Beck

# Fighting Debt Explosion in the European Sovereign Debt Crisis

## Eurobonds, Leveraging EFSF and Euro-TARP

A number of tools have been suggested for solving the European sovereign debt crisis, in particular the options of leveraging the EFSF/ESM, introducing Eurobonds and a European Troubled Asset Relief Programme (Euro-TARP). However, it is unclear how these instruments will work, given jittery financial markets, the pending sovereign default of Greece and the fear of contagion among other countries. In the following paper, these policy tools will be analysed and evaluated with respect to their effects as well as their potential power to solve the debt crisis.

The severe sovereign debt crisis in the eurozone has been immune so far to all of the measures that have been taken to solve it. It has become obvious that the eurozone lacks a mechanism to solve such a crisis, primarily because it was not considered possible that a eurozone country could come to the brink of sovereign default. The aftermath of the 2007 world financial crisis also proved that highly developed countries were not completely protected from default.<sup>1</sup> Jittery financial markets expecting a bailout of eurozone member countries were further disturbed by a sudden change in the political inclination of eurozone leaders, who started to demand contributions from private investors for a solution to the crisis. This sudden change of mind may be taken as the turning point, after which panic in financial markets took over.<sup>2</sup> When the debt crisis began in Greece, there was a real opportunity to avoid anxiety as well as contagion by simply accepting an orderly Greek default along with rescuing endangered banks, accepting

spreading interest rates for sovereign public debt according to default risks, and recapitalising European banks. Although this policy would also have triggered a kind of panic, it might have solved a crisis which since then has only expanded.

Meanwhile, there is no silver bullet on the horizon which could solve the crisis at once. Moreover, if the ECB had not bought the sovereign debt of endangered countries in the secondary market, the euro might already have disappeared. Since no other institution was available, the ECB was not only the lender of last resort for eurozone banks but also for (nearly) defaulting countries. In this way, the ECB was taken in tow by fiscal policy, in violation of its statute. To end this unbearable situation, the European Financial Stability Facility (EFSF) was agreed upon – but not immediately ratified – by the euro countries. The temporary EFSF is to become permanent and will then be known as the European Stability Mechanism (ESM). However, these policies have also been unable to solve the crisis so far.

The main explanation offered by critics for the ineffectiveness of the EFSF/ESM announcement was the lack of financial firepower. Critics suggested the EFSF/ESM ought to be leveraged to increase its financial capability. For example, the EFSF/ESM could be used as a bank, rather than a mechanism, to buy sovereign debt securities and utilise these securities as collateral for central bank money from the ECB. In this way, EFSF capital could be multiplied.

Eurobonds were proposed as a second way to guarantee that no eurozone member country would ever risk a default. Since these bonds would be guaranteed by all mem-

1 See P. De Grauwe: Crisis in the eurozone and how to deal with it, Centre for European Policy Studies, Policy Brief, 2010, available at <http://www.ceps.eu> for an analysis.

2 See J.H. Cochrane: Lessons from the financial crisis, Regulation, Winter 2009-2010, pp. 34-37, for a similar analysis of the Lehman crisis in the USA.

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ber countries, no single country could be attacked by the financial markets. To mitigate the inherent moral hazard problem with Eurobonds, eurozone countries would have to relinquish a portion of their national sovereignty with regard to their public budgets.

A third proposal to end the European sovereign debt crisis consists of a Euro-TARP, designed after the US programme to save banks from bankruptcy in the post-Lehman crisis. So-called troubled assets, i.e. non-performing public debt, would be bought by the TARP institution to clear endangered banks' balance sheets.

In this paper, the likely effects of these policy tools are analysed. The question is whether one of these policies might actually provide a solution to the European sovereign debt crisis. The remainder of the paper is structured as follows: first, the bond-buying programme of the ECB is investigated. We then scrutinise Eurobonds and EFSF/ESM leveraging before turning our attention to the Euro-TARP proposal.

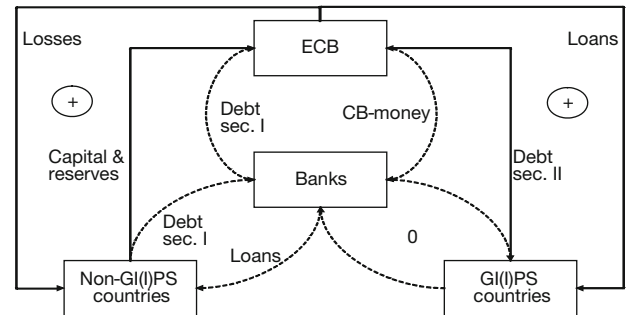
### ECB Debt Financing

It might be that the European sovereign debt crisis would not have occurred without the global financial crisis of 2007-08, or at least it would not have happened at this time with such intensity.<sup>3</sup> Be that as it may, it has happened as follows. The financial crisis forced most European states to spend a lot of money to save their banking systems. Thereafter, some of these countries found themselves confronted with very high budget deficits and sharply increasing levels of public debt. Moreover, and probably even more importantly, the expectations for economic growth were bleak. At this point the financial crisis jumped from the banking system to the states themselves, because some of them appeared no longer able to serve their sovereign debts. As a consequence, private investors, especially banks, became very reluctant to lend money to certain European states. Hence, the interest rates at which they could borrow money increased to levels where it was even more unlikely that they could serve and repay their newly emitted debt securities. As soon as it became clear that some countries might be unable to stay solvent, banks became reluctant to lend central bank money to one another on the interbank money market, obliging the ECB to assume the role of lender of last resort. But this did not solve the financing problems of the GIIPS countries<sup>4</sup>, who could not get the new loans they required at affordable interest rates. To calm markets and to prevent countries from defaulting, the ECB started a bond-buying programme for the GIIPS countries.

<sup>3</sup> See P. De Grauwe, *op. cit.*

<sup>4</sup> Greece, Italy, Ireland, Portugal and Spain.

Figure 1  
Debt Explosion I: ECB Debt Financing



Source: Own depiction.

The consequences of the ECB financing of the public debt of GIIPS countries are shown in Figure 1. In this figure, the central players are the banks, which invest in the debt securities (debt sec.) of national states, the ECB, which provides central bank money (CB-money), and two groups of states – GIIPS countries and non-GIIPS countries. The securities of non-GIIPS countries are called “debt sec. I”; the securities of GIIPS countries are “debt sec. II”. Moreover, it is assumed that banks no longer provide loans to GIIPS countries (the flows between banks and GIIPS countries are zero, as depicted). For sake of simplicity, the ECB is assumed to lend directly to the latter country group, i.e. the ECB transfers central bank money for debt securities II directly to those countries.

Imagine now that the ECB stopped buying GIIPS debt in order to limit the risks to its own balance sheet. At this point the crisis would immediately start again, because the private financial market would have no incentive to lend to GIIPS countries since nothing would have changed concerning the structural problems of these countries. It would seem, therefore, that the GIIPS countries would force the ECB to finance all maturing and newly emitted debt. This would constitute a positive feedback loop, as indicated on the right-hand side in Figure 1. The process would end with all debt securities II on the ECB's balance sheet. A consequence of this would be financial losses for the ECB. Since the eurozone member countries are the owners of the ECB, they would have to bear these losses. The ECB could pay a lower profit to the budgets of the owner countries, and with further increasing sovereign non-performing debt securities on the ECB's balance sheet, the central bank's capital and reserves would have to be replenished by taxpayers' money. In this way, the GIIPS countries' debt may become completely socialised via a positive feedback loop, as indicated on the left-hand side of Figure 1. We refer to this process as debt explosion, which will occur if the ECB is completely taken in tow by the fiscal policy of the GIIPS countries. Without rules that enforce sovereign default at

some clearly defined point of debt, *debt explosion* is hard to avoid with a central bank that finances public debt, either directly via the primary market or indirectly via the secondary market.<sup>5</sup>

### Eurobonds and Leveraging EFSF/ESM

One of the prominent proposed solutions to the European sovereign debt crisis is the issuance of Eurobonds.<sup>6</sup> These bonds would be emitted by a European agency on behalf of all eurozone member countries. They would be guaranteed by all member countries, so no single country could be attacked by investors and no single country could default. Eurobonds would entail a great moral hazard problem due to the lack of negative sanctions for countries with excessive debt. There are two ways to prevent or mitigate moral hazard in this scheme: either national member countries have to turn over part of their budget sovereignty to the European Commission or only public debt up to 60 per cent of GDP may be financed by Eurobonds (“blue bonds”). As the former option does not seem a politically feasible solution, the latter one might be more realistic. However, it cannot be considered a solution to the debt crisis, since the problem with public debt is excessive public debt above the threshold of 60 per cent. Although Delpla and von Weizsäcker’s blue bonds might be an interesting proposal for a time without a debt crisis, it does not provide a solution to the current crisis. Therefore, in the following analysis it is assumed that neither of the above options is enacted.<sup>8</sup> Instead it is supposed that Eurobonds are issued for all newly emitted sovereign debt of eurozone countries.

Because of fears that the firepower of the EFSF/ESM may not be sufficient to withstand attacks on countries like Italy or Spain, the leveraging of this mechanism has been discussed recently and gained more prominence after US Treasury Secretary Timothy Geithner suggested it.<sup>9</sup> For in-

stance, suppose the EFSF were to become a bank.<sup>10</sup> Buying debt securities II of GIIPS countries, these securities could be used as collateral for ECB credits. In this way the potential financial means of the EFSF could be leveraged. In a sense, having the EFSF buy debt securities from nearly defaulting or attacked countries would actually be the same as the ECB buying these securities itself.<sup>11</sup>

As shown in Figure 2, there is no significant difference between leveraging EFSF/ESM and Eurobonds with respect to their fundamental effects. The point is that with both instruments, GIIPS countries are no longer dependent on bank loans. Instead, they are funded financially by a publicly guaranteed intermediary agency. With Eurobonds, no difference exists between debt securities I and II; with a leveraging of the EFSF/ESM, the differences between the debt securities of GIIPS and non-GIIPS countries continue to exist, but they do not play a role because these securities can be equally used as collateral for ECB credit, i.e. CB-money. Moreover, banks will lend to the EFSF or buy Eurobonds, with the latter actually being debt securities I. Thus, by means of EFSF/Eurobonds, debt securities II are turned into debt securities I.

However, since Eurobonds and debt securities II of the EFSF are both accepted as collateral for ECB credit, all risky debt securities will end up, sooner or later, on the ECB’s balance sheet. This will again provoke ECB losses, which will have to be borne by the eurozone member countries via the guarantee of the ECB’s capital and reserves.

The process – albeit somewhat more complex than the direct buying of debt securities II by the ECB – implies positive feedback loops leading to debt explosion. Since there is no mechanism in sight 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 (see the feedback loop on the right-hand side of Figure 2). Since banks (and all investors) have strict objectives to get rid of the highly risky debt securities of GIIPS countries, they are a second driving force of this positive feedback loop. Because Eurobonds and leveraged EFSF bonds are both accepted as collateral for

5 It seems noteworthy that P. De Grauwe: A mechanism of self-destruction of the eurozone, Centre for European Policy Studies, Commentary, 9 November 2010, available at <http://www.ceps.eu>, argues strictly otherwise. According to his analysis, the claim for sovereign default is based on false premises as to the diagnosis of the origins of the debt crisis. However, as argued above, it does not matter now what created the crisis. In the meantime, the crisis has gained its own momentum, which is no longer determined by the causes which might have created it.

6 P. De Grauwe, W. Moesen: Gains for all: A proposal for a common Euro Bond, in: *Intereconomics*, Vol. 44, No. 3, 2009, pp. 132-135.

7 J. Delpla, J. von Weizsäcker: Eurobonds: The blue bond concept and its implications, in: *Bruegel Policy Contribution Issue 2011/02*, March 2011, available at <http://www.bruegel.org/>.

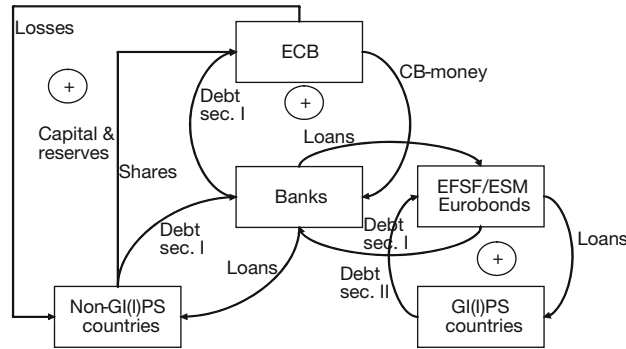
8 For a more comprehensive analysis of Eurobonds see H. Beck, D. Wentzel: Eurobonds – Wunderwaffe oder Sprengsatz für die Europäische Union?, in: *Wirtschaftsdienst*, Vol. 91, No. 10, 2011, pp. 1-7, and the literature quoted therein.

9 See R. Barley: No easy fix on hand to leverage EFSF, in: *The Wall Street Journal Europe*, 4 October 2011, p. 36.

10 See D. Gros, T. Mayer: Refinancing the EFSF via the ECB, Centre for European Policy Studies, Commentary, Revised 18 August 2011, available at <http://www.ceps.eu>. For a different way of leveraging see C. Forelle: How bailout fund could be leveraged without ECB, in: *The Wall Street Journal Europe*, 27 September 2011, p. 6; for a preliminary and brief evaluation of the different ways see S. Fidler: A rundown on leveraging Euro zone’s bailout fund, in: *The Wall Street Journal Europe*, 28 September 2011, p. 6.

11 For a critique along these lines see also A Fannie Mae for Europe’s Bonds?, in: *The Wall Street Journal Europe*, 27 September 2011, p. 16; and G.T. Smith: EFSF Leverage: Euro zone’s most dangerous delusion, in: *The Wall Street Journal Europe*, 29 September 2011, p. 6.

**Figure 2**  
**Debt Explosion II: Eurobonds and Leveraging EFSF/ESM**



Source: Own depiction.

ECB credit, the second positive feedback loop in the middle of Figure 2 is set in motion. These two feedback loops combine to set off a third one, which contains the ultimate financing of the exploded sovereign debts by non-GIIPS countries, as indicated on the left-hand side of Figure 2.

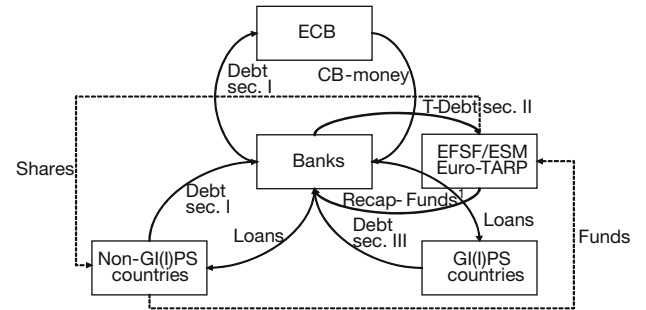
To sum up briefly: all of the mechanisms analysed thus far are prone to debt explosion because there is no negative feedback loop that might stop debt dynamics. The only negative feedback loop that has worked so far is market discipline – and every policy that loosens this market discipline increases the likelihood of debt explosion. Obviously the lack of enforceable rules for sovereign default in the eurozone – which would have imposed market discipline on the indebted countries – is the single most important construction error of the euro. Additionally, it is much more effective to save critical banks (to-big- to-fail banks) instead of saving countries from default.

**European Troubled Asset Relief Programme (Euro-TARP)**

The reason that saving banks may be a better solution to the European sovereign debt crisis than rescuing countries is that, beyond a certain threshold, it becomes almost impossible to save a country from default with austerity measures<sup>12</sup>, at least without risking national turmoil or even civil war. Moreover, bailing out a country is very expensive because it is virtually impossible to motivate debt holders to participate in the costs. Instead of using EFSF/ESM funds to support nearly insolvent countries, the resources could be devoted to recapitalise critical banks in such a way that they will be prepared to write-down the sovereign

12 See T.J. Cunningham: Growing out of deficits: Debt dynamics in a disequilibrium model, in: Journal of Post Keynesian Economics, Vol. 9, No. 2, 1986-87, pp. 297-306.

**Figure 3**  
**Euro-TARP**



<sup>1</sup> Recap-Funds: recapitalisation funds.

Source: Own depiction.

debt of, say, Greece, Ireland and Portugal without risking intolerably low equity ratios.<sup>13</sup> This policy is referred to here as Euro-TARP, following Steinmetz’s proposal of a “European TARP” (referring to the US Troubled Asset Relief Program<sup>14</sup>). The structure of the Euro-TARP is shown in Figure 3.

In Figure 3, banks can dispose of troubled European sovereign debt securities II via the Euro-TARP. In exchange, they receive recapitalisation funds which are owned by the state. As a consequence, the respective bank relinquishes some of its autonomy. Banks may decide to invest further in newly emitted securities of GIIPS countries, and in Figure 3 we refer to these as debt securities III. The most important difference to the previous policies considered here is that the ECB would be isolated from the debt crisis and, hence, from the fiscal policy of the eurozone.

Nevertheless, recapitalising banks via the EFSF/ESM will not work without market discipline, i.e. a brake on debt explosion. One means to introduce market discipline may be sovereign default. Without sovereign default, banks (and investors) 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. If sovereign default is accepted (or even enforced) by European institutions, banks and investors will become more cautious with regard to attacking a presumably vulnerable country, because they would then have to account for the risk of an actual default by the country.

13 See A. Steinmetz: It’s time for a European TARP, in: The Wall Street Journal Europe, 22 September 2011, p. 20.

14 See <http://www.treasury.gov/initiatives/financial-stability/Pages/default.aspx> (4.10.2011).



With a credible default risk, banks will have to recapitalise either by themselves or by tapping the resources of the EFSF/ESM. The latter path would be required if a bank would be putting its own solvency at risk when writing down the respective debt securities. However, the price of tapping the EFSF/ESM would be a loss of autonomy, since the public would then become a shareholder of the bank. Only after paying back these public funds would the bank regain its autonomy.

The Euro-TARP solution, combined with enforceable sovereign default rules within the eurozone, would avoid the debt explosion trap contained in the previous solutions. The reason is that investors will face a default risk which they cannot transfer to the ECB and, by extension, the taxpayer. Protecting the ECB from sovereign default may be crucial to saving the eurozone, as pointed out by John Cochrane.<sup>15</sup> Moreover, the financial markets are the only institutions that are able to control moral hazard concerning the public debt of sovereign states.<sup>16</sup> To be motivated to control for sovereign risk, however, credible default risks are prerequisites. Whether or not there is a credible default risk can be immediately determined via the interest rates on national debt. The riskier the debt, the higher the interest rate will be. High interest rates restrict sovereign countries' ability and willingness to choose debt as an instrument to finance the budget. As a consequence, sovereign defaults become less likely. With respect to banks, the existence of sizeable sovereign default risks requires financial buffers, i.e. bank capital.<sup>17</sup> Banks might not be voluntarily willing to accumulate these necessary amounts of capital. As the financial crisis of 2007-08 proved, banks believe that leveraging their capital is a profitable strategy because their default risk is, to a certain extent, assumed by the public through deposit insurance schemes. Hence, banks are also prone to moral hazard. The best method to mitigate this is to prescribe a sufficient level of capital which banks are required to provide; for instance, Cochrane<sup>18</sup> argues that even bank capital of ten per cent would be not enough.

## Conclusion

Among the many recently proposed solutions to the European sovereign debt crisis, the most important proposals are Eurobonds, leveraging the EFSF/ESM and a European TARP. In this paper, we have analysed the effects of these

instruments and evaluated them as tools for solving the debt crisis.

In a first step, the ECB's bond-buying programme of nearly insolvent European countries was analysed. It has been shown that without an enforceable sovereign default, banks and investors may force the central bank to buy all critical debt securities the risks of which are seemingly too high for investors. Consequently, the central bank would end up with all of these securities on its balance sheet, and the ECB's eventual losses would be financed via capital and reserve transfers from the eurozone countries which own the ECB. In this way, the eurozone taxpayers would bear the full risk of nearly defaulting countries.

However, neither Eurobonds nor leveraging the EFSF/ESM would bring about a different outcome. Eurobonds would socialise the risks of all sovereign debt in the eurozone, at least if there were no enforceable sovereign default. The reason is that the inherent moral hazard problem of Eurobonds cannot be solved otherwise. Put differently, if sovereign default could be enforced, Eurobonds would be dispensable because financial markets would have an incentive to charge different risk premiums for countries depending on their fiscal discipline.

Leveraging the EFSF/ESM would produce the same result as Eurobonds. The reason is that the EFSF/ESM would be a kind of intermediary which would buy critical debt securities with the intention of offering them to the ECB as collateral for central bank credit. Without enforceable sovereign default, this policy would also result in debt explosion, because it is essentially no different than the ECB's bond-buying programme.

A different result could be achieved if the EFSF/ESM were employed to recapitalise banks which could become insolvent if a eurozone country defaulted. This policy is called Euro-TARP. Even this policy would imply debt explosion without enforceable sovereign default, because investors would be able to force the EFSF/ESM to buy all critical debt securities. However, if enforceable sovereign default was feasible, a Euro-TARP could be a better solution than Eurobonds or leveraging the EFSF/ESM. Eurobonds and a leveraged EFSF/ESM would be prone to moral hazard of nations. In addition, there is also a moral hazard problem on the side of banks and investors, due to the profitable effects of leveraging, i.e. holding too little capital reserves. Prescribing an adequate level of bank capital would solve this problem, but not the moral hazard problem of sovereign debt. Thus, a Euro-TARP, combined with enforceable sovereign default and a mandatory adequate capital basis for banks, would presumably be a better policy tool to solve the debt crisis than Eurobonds or leveraging the EFSF/ESM.

15 J.H. Cochrane: Last chance to save the Euro, *The Wall Street Journal Europe*, 30 September - 2 October, p. 16.

16 Ibid.

17 See J.H. Cochrane: The more bank capital, the safer the bank, in: *The Wall Street Journal*, 15 July, online edition at <http://online.wsj.com/> (16.7.2011).

18 Ibid.