

# Only a more active ECB can solve the euro crisis

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The biggest threat for the eurozone is the contagion of the Greek sovereign debt crisis to the rest of the system. If the Greek crisis could be isolated, it would barely matter for the eurozone as a whole. After countless crisis meetings of the European Council, however, it has to be admitted that the European leaders have failed to isolate the Greek crisis and to stop the forces of contagion. The latest meeting of the heads of state or government of the euro area on July 21st is no exception.

## Fragility of the eurozone

Why has it been so difficult to stop the forces of contagion? Here is my answer. Government bond markets in a monetary union are extremely vulnerable. The reason is that national governments in a monetary union issue debt in a 'foreign' currency, i.e. one over which they have no control. As a result, they cannot guarantee to the bondholders that they will always have the necessary liquidity to pay out the bond at maturity. This contrasts with 'stand alone' countries that issue sovereign bonds in their own currencies. This feature allows these countries to guarantee that the cash will always be available to pay out the bondholders.

The absence of such a guarantee makes the sovereign bond markets in a monetary union prone to forces of contagion, in much the same way that banking systems that lack a lender of

last resort are prone to contagion. In such banking systems, solvency problems in one bank quickly lead deposit holders of other banks to withdraw their deposits, setting in motion a generalised crisis. The same risk exists in a monetary union when solvency problems in one country (Greece) lead bondholders to fear the worst in other bond markets and to sell the bonds there. This triggers a liquidity crisis in these other markets only because there is a fear that cash may not be available. The ensuing increase in interest rates then turns the liquidity crisis into a solvency crisis. Any country can become insolvent if the interest rate is pushed high enough. Distrust can drive a country in a self-fulfilling way into a bad equilibrium.<sup>1</sup>

## The role of the European Central Bank

We have learned from the history of banking that a necessary<sup>2</sup> condition to stabilise the banking system consists of providing for a lender of last resort. This gives a guarantee to deposit holders that the cash will always be available, and pacifies them most of the time. The nice thing about this solution is that when deposit holders

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<sup>1</sup> See De Grauwe (2011) where this point is elaborated further. See also Kopf (2011). For formal theoretical models see Calvo (1988) and Gros (2011). This problem also exists with emerging countries that issue debt in a foreign currency. See Eichengreen et al. (2005).

<sup>2</sup> Note the use of the word "necessary", not "sufficient".

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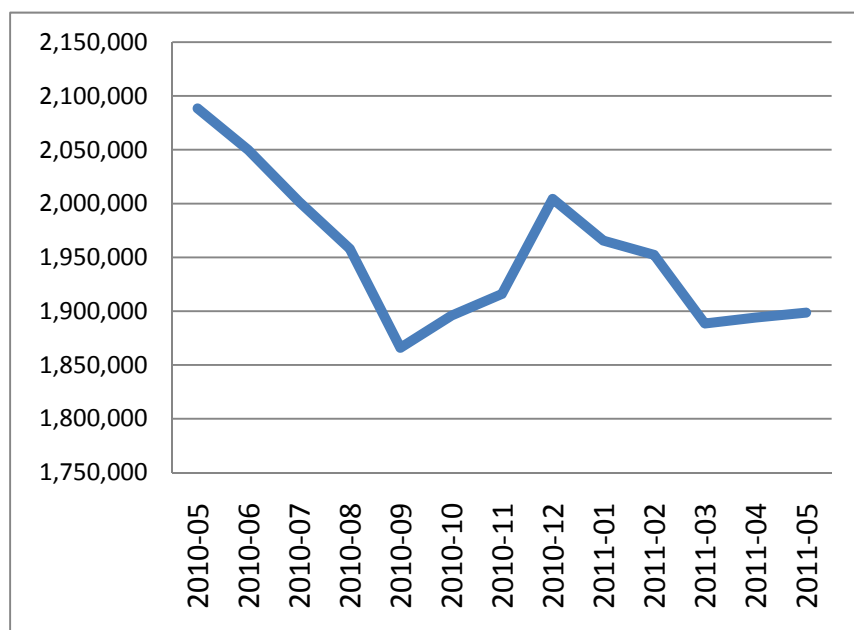
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are confident that it will be used, it rarely has to be invoked.<sup>3</sup>

The solution to the contagion problems of the banking system is exactly the same solution for a monetary union. Contagion between sovereign bond markets can only be stopped if there is a central bank willing to be the lender of last resort, i.e. willing to guarantee that the cash will always be available to pay out the bondholders. The only institution in the eurozone that can perform this role is the European Central Bank. Up until recently, the ECB has performed this role either directly by buying government bonds, or indirectly by accepting government bonds as collateral in its liquidity provision to the banking system. However, it has made it clear that it is unwilling to continue to do so. In fact, since the eruption of the Greek crisis in May 2010, the ECB has reduced its balance sheet by almost €200 billion thereby reducing liquidity in the system (see Figure 1).

Figure 1. Total balance sheet of the ECB since May 2010 (€ million)



Source: ECB, Statistical Data Warehouse.

It made this reduction while the crisis escalated, and governments were scrambling to find the cash to support Greece. The reluctance of the ECB to take up its responsibility as a lender of last resort is the single most important

factor explaining why the forces of contagion in the eurozone's sovereign bond markets has not been stopped.

Several arguments have been voiced to support the view that the ECB should not have a responsibility of lender of last resort in the government bond markets. Let us discuss these.

### What if the central bank loses money?

A first and popular argument is that the ECB should not have such a responsibility because when buying government bonds it risks losing money. This is certainly not a good argument. When there is confidence that the central bank will operate as a lender of last resort in the sovereign bond markets, the central bank does not have to act as a lender of last resort most of the time. Expressed differently, the lender-of-last-resort function of a central bank is an insurance mechanism. It is essential to have such a mechanism in place to stabilise the system, but

it can only assure stability if it inspires confidence.<sup>4</sup> And only the central bank can provide the insurance that keeps investors confident.<sup>5</sup> As with any insurance company, however, once in a while losses are made, but this is not a good reason to stop providing the insurance. In addition, contrary to private insurance companies, the ECB should not really worry about the fact that once in a while it loses money. What matters is the financial stability it ensures, not the profit-and-loss account of the central bank.

This is quite an important point. When financial stability is at stake, and in the case of the eurozone, when its very future is at stake, the last thing a central bank should worry

about is whether it is profitable. It may be necessary for the central bank to make losses so as to preserve financial stability. In that case, these losses are desirable. This is the case even if these losses are so large as to wipe out the equity of the central bank. In contrast to private firms,

<sup>3</sup> See Goodhart & Illing (2002), and of course Bagehot (1873).

<sup>4</sup> See Winkler (2011).

<sup>5</sup> To quote Bagehot (1873): "All our credit system depends on the Bank of England for its security."

the central bank can live happily with negative equity, because the central bank can always fill the holes by printing money.<sup>6</sup>

### What about moral hazard?

Like with all insurance mechanisms, there is a risk of moral hazard. This is the risk that if the ECB guarantees that cash will always be available to pay out sovereign bond holders, it will lead governments to issue too much debt. This is indeed a serious risk. But this risk of moral hazard is no different from the risk of moral hazard in the banking system. It would be a terrible mistake if the central bank were to abandon its role of lender of last resort in the banking sector because there is a risk of moral hazard. In the same way, it is wrong for the ECB to abandon its role of lender of last resort in the government bond market because there is a risk of moral hazard.

The way to deal with moral hazard is to impose rules that will constrain governments in issuing debt, very much like the banking sector tackles moral hazard by imposing limits on risk taking by banks.

Ideally, the lender-of-last-resort function should only be used when banks (or governments) experience liquidity problems. It should not be used when they are insolvent. This is the doctrine as formulated by Bagehot (1873). It is also very strongly felt by economists in Northern Europe (see Plenum der Ökonomen, 2011). The central bank should not bail out banks or governments that are insolvent.

This is certainly correct. The problem with this doctrine, however, is that it is often difficult to distinguish between liquidity and solvency crises. Most economists today would agree that Greece is insolvent. But what about Spain, Ireland, Portugal, Italy and Belgium? The best and the brightest economists do not agree on the question of whether these countries' governments are just illiquid or whether they suffer from a deep solvency problem. How would markets know?

When sovereign debt crises erupt these are very often a mix of liquidity and solvency problems.

<sup>6</sup> See Buiters (2008) on this. See also Belke & Polleit (2010). An issue that arises here (and to which I return later) is the extent to which this can lead to inflation.

Liquidity crises raise the interest rate on the debt issued by governments and therefore quickly degenerate into solvency problems. Solvency problems often lead to liquidity crises that intensify the solvency problem. It is therefore easy to say that the central bank should only provide liquidity to governments or banks that are illiquid but solvent. In practice, however, it is often very difficult to implement this doctrine.

In fact, it is even worse than difficult. The doctrine leads to a paradox. If it were easy to separate liquidity from solvency problems, the markets would also find it easy to do so. Thus if a government came under pressure, financial markets would be able to determine whether this government suffered from a liquidity or a solvency problem. If they determined it was a liquidity problem, they would be willing to provide credit to the government. The central bank would not have to step in. If they determined it is a solvency problem, they would not want to provide credit and rightly so. The Bagehot doctrine would come to the same conclusion: the central bank should not bail out an insolvent government. The conclusion is that if solvency and liquidity crises can be separated, there is no need for a lender of last resort. Financial markets would take care of the problems.<sup>7</sup> Who wants to believe this these days?

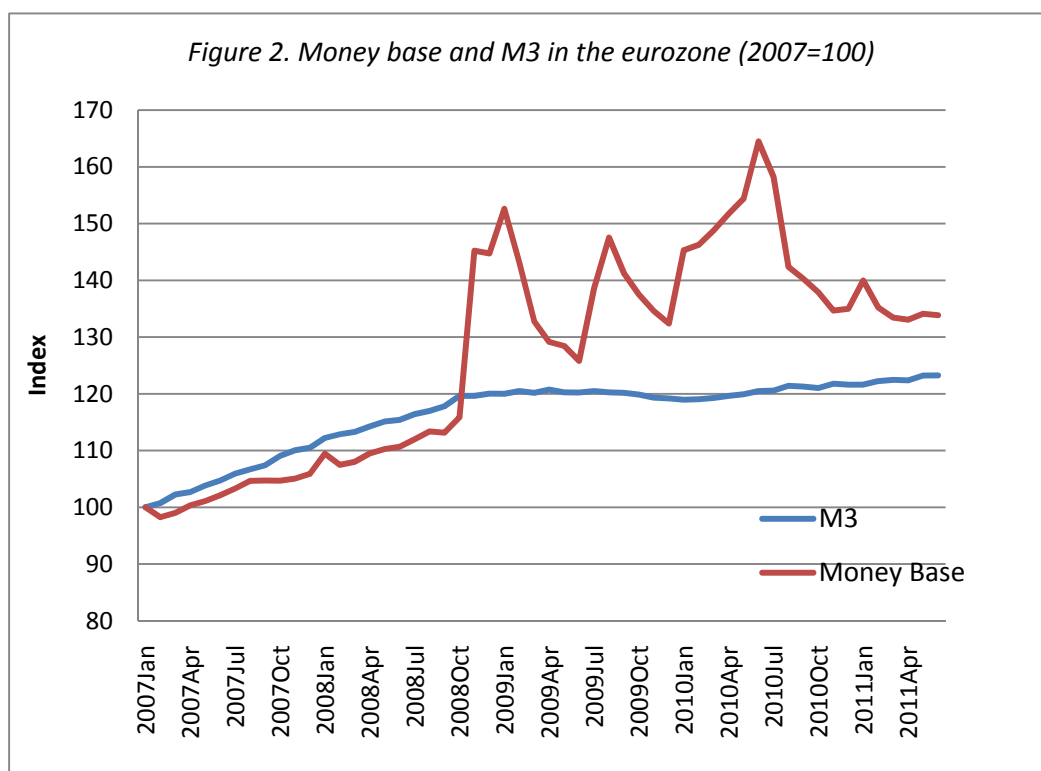
### What about inflation?

Another popular argument against an active role of the ECB as a lender of last resort in the sovereign bond market is that this would lead to inflation. By buying government bonds the ECB increases the money stock, thereby leading to more inflation in the future. Doesn't an increase in the money stock always lead to more inflation, as Milton Friedman taught us? Two points should be made here.

First, a distinction should be introduced between the money base and the money stock. When the central bank buys government bonds (or other assets), it increases the money base (currency in circulation and banks' deposits at the central bank). This does not mean that the money stock increases. The period of financial crisis has been one during which both monetary aggregates became totally disconnected. This is shown in

<sup>7</sup> This seems to have been the belief of Alan Greenspan. See Greenspan (2007).

Figure 2. One observes that prior to the banking crisis of October 2008, both aggregates were very much connected. From October 2008 on, however, the disconnect became quite spectacular. In order to save the banking system, the ECB massively piled up assets on its balance sheets, the counterpart of which was a very large increase in the money base.<sup>8</sup> This very large increase in the money base had no effect on the money stock (M3) (see Figure 2).



Source: ECB, Statistical Data Warehouse.

In fact, the money stock declined until the end of 2009. The reason why this happened is that banks piled up the liquidity provided by the ECB without using it to extend credit to the non-banking sector. Thus, the large liquidity injections by the ECB had no impact on inflation because they did not increase the money stock. A similar phenomenon has been observed in the US and the UK.

Another way to understand this phenomenon is to note that when a financial crisis erupts, agents want to hold cash for safety reasons. If the

<sup>8</sup> Note that compared to the US Fed and the Bank of England, the expansion of the balance sheet of the ECB was much less pronounced. See the data in the Appendix. It appears that the ECB has been a timid lender of last resort compared to the Fed and the Bank of England

central bank decides not to supply the cash, it turns the financial crisis into an economic recession and possibly a depression, as agents scramble for cash. When instead the central bank exerts its function of lender of last resort and supplies more money base, it stops this deflationary process. But that does not allow us to conclude that the central bank is likely to create inflation. All this was very well understood by Milton Friedman who argued that the Great Depression was so intense because the Federal Reserve failed to perform its role of lender of last resort, and did not increase the US money base sufficiently (see Friedman & Schwartz, 1961).

A second point to be made on this issue is that if the ECB is afraid that increasing the money base during times of financial crisis will lead to more inflation, it can always sterilise the effects of these operations on the money base. Thus, if the ECB buys

Spanish government bonds, thereby increasing the money base, it can always reverse this effect by selling other assets. As a result, it can keep the money base unchanged. The only thing that changes is the composition of its assets in the balance sheet, not the size of the balance sheets. Thus, the ECB can perform its role of lender of last resort in the sovereign bond market without posing the slightest risk of inflation.

### EFSF and ESM: Poor surrogates

The ECB's decision to abandon its role of lender of last resort in the government bond market has forced the eurozone members to create surrogate institutions - the European Financial Stability Facility (EFSF) and the future European Stability



Mechanism (ESM).<sup>9</sup> The problem with these institutions is that they will never have the necessary credibility to stop the forces of contagion, because neither can guarantee that the cash will always be available to pay out sovereign bond holders. Even if the resources of that institution were to be doubled or tripled relative to its present level of €440 billion, this would not be sufficient. Only a central bank that can create unlimited amounts of cash can provide such a guarantee.

In addition, the EFSF (and the future ESM) have been designed to solve the twin problems of liquidity and solvency. First, the task of the EFSF is to provide liquidity to governments experiencing a liquidity shortage. This liquidity provision role has been strengthened by the recent decision of the European Council to allow the EFSF to buy government bonds in the secondary market. Second, the EFSF also has the responsibility for solving the moral hazard problem created by liquidity provision. This has led the EFSF to impose tough conditions on the governments that seek financial assistance.

These two responsibilities of the EFSF, however, are in conflict with each other. When the EFSF is guided by moral hazard concerns, it tends to restrict and to add conditions to its liquidity provisions, thereby preventing the resolution of liquidity crises and allowing these to degenerate into solvency crises.

### A separation theorem<sup>10</sup>

I conclude from the preceding discussion that it is better to separate the two functions. Liquidity provision should be performed by a central bank and the governance of moral hazard by another institution, the supervisor. This has been the approach taken in the strategy towards the banking sector: the central bank assumes the responsibility of lender of last resort, thereby guaranteeing unlimited liquidity provision in times of crisis, irrespective of what this does to moral hazard; the supervisory authority takes

over the responsibility of regulating and supervising the banks.

This should also be the design of the governance within the eurozone. The ECB would assume the responsibility of lender of last resort in the sovereign bond markets. A different and independent authority would take over the responsibility of regulating and supervising the creation of debt by national governments. To use a metaphor: When a house is burning, the fire department is responsible for extinguishing the fire. Another department (police and justice) is responsible for investigating wrongdoing and applying punishment if necessary. Both functions are kept separate. A fire department that is responsible both for putting out the fire and punishment is unlikely to be a good fire department. The same is true for the EFSF, which is supposed to both provide liquidity and impose conditions under which this liquidity is provided.

### Conclusion

There is a need for a fundamental overhaul of the eurozone's institutions. In that overhaul it is essential that the ECB take on the full responsibility of lender of last resort in the government bond markets of the eurozone. Without this guarantee, the government bond markets in the eurozone cannot be stabilised and crises will remain endemic.

At the same time, further steps towards political unification must be taken without which effective control on national government deficits and debts cannot be implemented. Some steps in that direction were taken recently when the European Council decided to strengthen the control on national budgetary processes and on national macroeconomic policies. These decisions, however, are insufficient and more fundamental changes in the governance of the eurozone are called for. These changes should be such that the central bank can trust that its lender of last resort responsibilities in the government bond markets will not lead to a never-ending dynamics of debt creation.

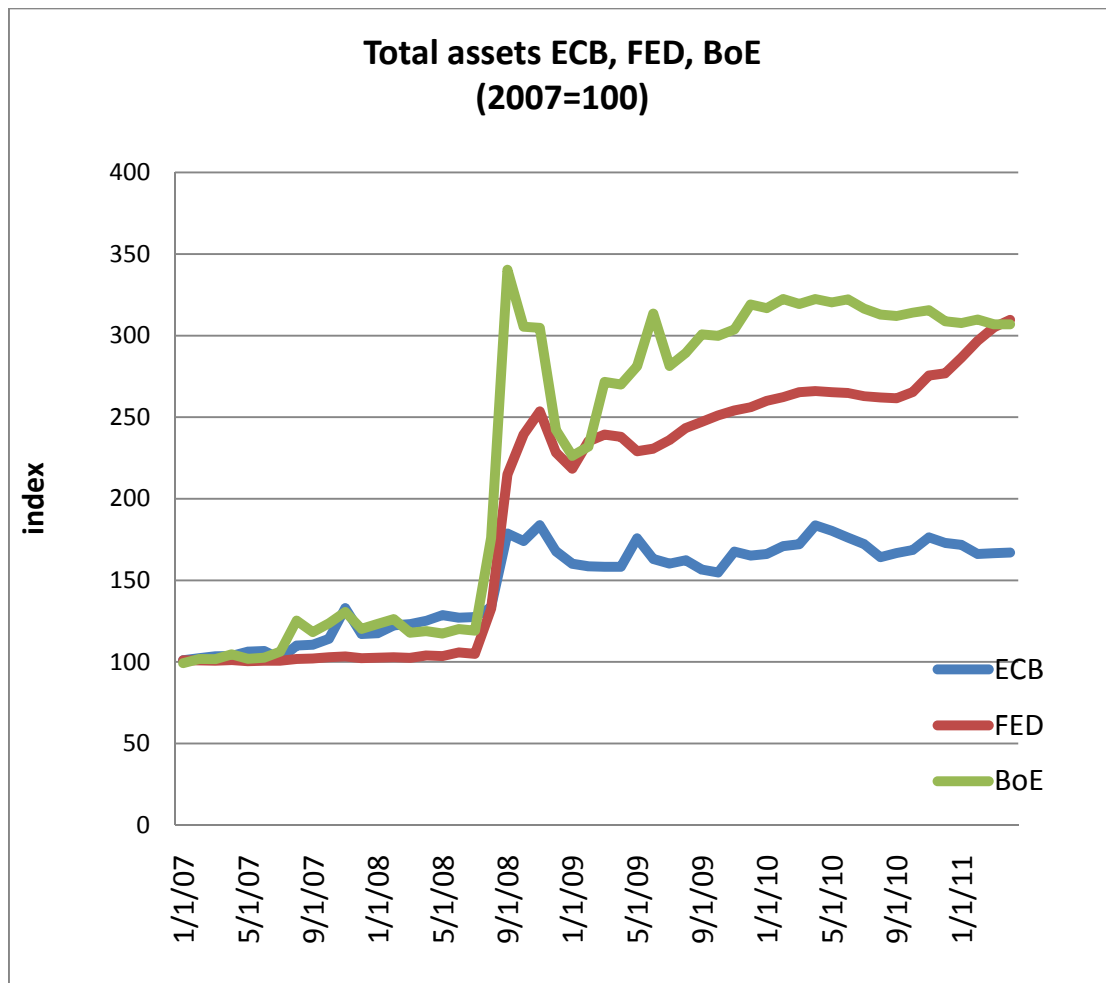
<sup>9</sup> Gros & Mayer (2010) were the first to propose the creation of a European Monetary Fund to substitute for the ECB.

<sup>10</sup> Separation theorems are quite popular in economics in the belief that separating functions and actions often enhances efficiency.

## References

- Bagehot, W. (1873), *Lombard Street*, 14<sup>th</sup> ed., London: Henry S. King and Co. (<http://www.econlib.org/library/Bagehot/bagLom1.html>).
- Belke, A. and T. Polleit (2010), "How much fiscal backing must the ECB have? The euro area is not (yet) the Philippines", *International Economics*, No. 124-4.
- Buiter, W. (2008), "Can Central Banks Go Broke?", CEPR Policy Insight, No. 24, Centre for Economic Policy Research, London, May.
- Calvo, Guillermo (1988), "Servicing the Public Debt: The Role of Expectations", *American Economic Review*, Vol. 78, No. 4, pp. 647-661.
- De Grauwe, P. (2011), "The Governance of a Fragile Eurozone", CEPS Working Document No. 346, Centre for European Policy Studies, Brussels, May (<http://www.ceps.eu/book/governance-fragile-eurozone>).
- Eichengreen, B., R. Hausmann and U. Panizza (2005), "The Pain of Original Sin", in B. Eichengreen and R. Hausmann, *Other people's money: Debt denomination and financial instability in emerging market economies*, Chicago, IL: Chicago University Press.
- Friedman, M. and A. Schwartz (1961), *A Monetary History of the United States*, Princeton, NJ: Princeton University Press.
- Goodhart, Charles and Gerhard Illing (eds) (2002), *Financial Crises, Contagion, and the Lender of Last Resort, a Reader*, Oxford: Oxford University Press.
- Goodfriend, M. (2011), "Central Banking in the Credit Turmoil: An Assessment of Federal Reserve Practice", *Journal of Monetary Economics*, January.
- Greenspan, A. (2007), *The Age of Turbulence. Adventures in a New World*, Penguin Books, London England, 531 pages.
- Gros, D. and T. Mayer (2010), "Towards a European Monetary Fund", CEPS Policy Brief, Centre for European Policy Studies, Brussels (<http://www.ceps.eu/book/towards-european-monetary-fund>).
- Gros, D. (2011), "A Simple Model of Multiple Equilibria and Default", Centre for European Policy Studies, Brussels.
- Kopf, Christian (2011), "Restoring financial stability in the euro area", CEPS Policy Brief No. 237, Centre for European Policy Studies, Brussels, March.
- Mundell, R. (1961), "A Theory of Optimal Currency Areas", *American Economic Review*, 51.
- Plenum der Ökonomen (2011), Stellungnahme zur EU-Schuldenkrise (<http://www.wiso.uni-hamburg.de/luccke/?p=581>).
- Von Hagen, J. (1996), "Währungsunion, Fiskalunion, Politische Union", mimeo, Universität Mannheim, May.
- Winkler, A. (2011), "The Joint Production of Confidence: Lessons from Nineteenth Century US Commercial Banks for Twenty First Century Eurozone Governments", mimeo, Frankfurt School of Finance and Management.

## Appendix



Source: Datastream.



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