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ECB's Monetary tools and the Bazooka Option

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One of the most cited possible solutions to the current European Debt crisis is the so-called Bazooka Option. Proponents of this exit strategy want the ECB to use its unlimited monetary firepower to place a ceiling on the yields of Italy, Spain etc. by becoming the buyer of last resort (at 5% yield is the suggestion). Various estimates of the size of the bazooka have been given and the general consensus is that a minimum of 2 trillion Euro should be enough to calm the markets. In fact, the ECB through the Securities Market Program (SMP, Item 7.1 in Balance sheet) engaged in this outright buying of periphery bonds when the Greek crisis entered a critical phase last year. The ECB reopened the SMP the last couple of months to support Italy and Spain. Currently the size of the SMP is around €160.5 bn. So why not go all the way as the Bazooka fans advocate and use the unlimited firepower? Opponents of this option usually site:

Although the letter of the law says the ECB is not allowed to buy government debt directly (**see box**) from the issuers, it so far has avoided the problem by buying secondary market bonds. This is a violation of the spirit rather than the letter of the law.

- *Moral Hazard. Politicians no longer need to worry about balancing budgets since any financing need will simply be absorbed by the ECB.*
- *Once the ECB starts buying Bonds at 5% yield, it becomes incredibly difficult to stop since yields would most likely widen on all peripheral debt to achieve this ECB price. It would cause losses even in markets that have no problems as yet.*
- *ECB would become susceptible to political pressure as the threat of haircuts on the debt by governments becomes a significant risk to their balance sheet (ECB has infinite buying power by printing new euros but limited capital of some €10bn to absorb any losses from their balance sheet purchases, ECB officially could then be considered a bad bank)*

Regulatory Reserve.

The Regulatory Reserve Requirement is calculated per financial institution as 2% of the short term liabilities. Banks need to have an average deposit with the ECB equal or greater to this amount every maintenance period (4-5 weeks). It is item A2.1 in the ECB's balance sheet

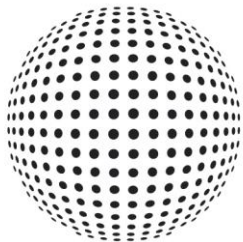
Article 21 Operations with public entities

21.1. In accordance with Article 123 of the Treaty on the Functioning of the European Union, overdrafts or any other type of credit facility with the ECB or with the national central banks in favour of Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States shall be prohibited, as shall the purchase **directly** from them by the ECB or national central banks

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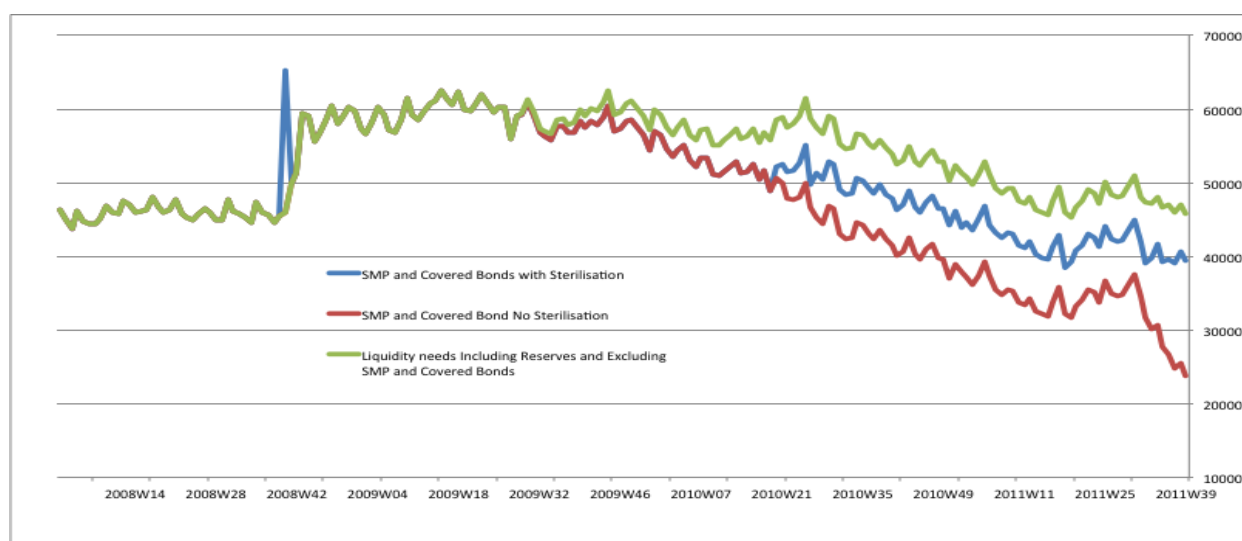
However, another reason, which is rarely mentioned, is the issue of monetary policy and the transmission mechanism i.e.

LOSS OF MONETARY CONTROL OF INTEREST RATES AND TRANSMISSION POLICY

Like many central bank in the world, the ECB controls market rates by determining the price at which liquidity is provided to the financial institutions. In Europe this is achieved via the use of Open Market Operations (OMOs, items A5.1, A5.2 in ECB Balance sheet) whereby the central bank lends euros to financial institutions against them posting suitable collateral. These operations are known as Repurchase Operations (Repos) and have tenure of 1 Week, 1 Month, 3 Month or even longer if deemed necessary by the Central Bank. To control interest rates, the ECB maintains three separate facilities. The Deposit Rate as the lower bound (0.75%), the Marginal Lending rate (Upper bound, 2.25%), and the Repurchase agreement (middle of the range, 1.50%)

In simple terms, the ECB's aim in the Eurosystem is to manage the price of money (Interest Rate) by controlling the amount of liquidity supplied. i.e. the amount that helps banks to fulfil their reserve requirements. The standing facilities set a corridor of interest rates and if the supply is balanced relative to the banking community's requirements, then short-term interest rates should be close to the middle of this corridor. Reserve requirements also help to reduce volatility in short-term interest rates by giving commercial banks a buffer for unexpected liquidity flows on their accounts.

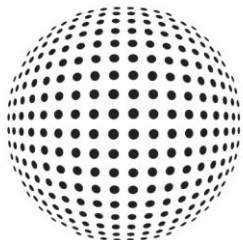
The fact that the Eurosystem is short liquidity is thus used by the ECB to manage the short-term interest rates through their OMO's. Before the crisis, the ECB would calculate on a weekly basis how much liquidity the Eurosystem needs and it would provide it using the Repo operations. With the introduction of full allotments, financial institutions could, if desired, borrow more than needed as a precautionary measure against market disruptions.



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The calculation involves, the Autonomous factor on both the Asset and Liability side of the ECB's balance sheet. In the graph above, the green line is the total liquidity shortage in the system, including the regulatory requirement (Item L2.1. Balance Sheet Data from ECB Website). It excludes the SMP program and its sterilization plus the Covered Bonds Program (unsterilized). Currently the total shortage in the system would correspond to approximately € 450 bn. If we now introduce the Covered Bond purchase program and the SMP (including sterilization), we find the funds needed to balance the system have dropped to around €400 bn. Finally, the Red line corresponds to the amount of liquidity needed by the system if the weekly sterilization of the SMP program was unsuccessful. In this instance, we clearly see that the drop in liquidity to balance the system has now reached around €250 bn. (The blue spike in 2008 is due to the ECB reporting a Fine Tuning Operation line 2.3 of the liability side of the balance sheet instead of the normal 2.4 entry.)

Firing the Bazooka may negate the OMO tools

SMP and Covered bonds purchases help banking stability but destabilises Open Market Operations.

Here lies the essence of the problem. The recent announcement of the reopening of the covered Bond purchase program by some €40bn coupled with a possible significant increase in purchases by the ECB in the SMP program (another € 200bn) may result in the ECB now transferring liquidity controls to the banking sector. Open Market Operations are no longer needed by the banks to satisfy their reserve requirements since instead of participating in the SMP sterilization program, they can use their extra cash to satisfy their reserve requirements. In this scenario the ECB is no longer a creditor bank and loses the firepower of the REPO and its main policy transmission mechanism. In other words, it cannot enforce its monetary policy decisions through its OMO (Open Market Operations). The banks now determine how the excess cash in the system will be used either to park it in the deposit facility on a daily basis or lend the money for 1 week via the SMP sterilization program (if they find the ECB rate attractive enough for their needs)

IMPORTANT NOTE: Currently the ECB is sterilising the SMP program by withdrawing the cash liquidity injected through the SMP via a weekly deposit (Item L2.3 in ECB balance sheet). However, Eurosystem banks are NOT obliged to give this money to the ECB. Although the ECB sets an upper limit (1.5% and same as repo rate) the amount offered by the banks and the rate at which they offer is beyond the control of the central bank. Although in the present market conditions where excess liquidity is around €200bn, sterilization is easily achieved, if excess liquidity decreases to €20 or €30bn then sterilization may not be a smooth operation. A significant increase in the SMP purchase program may therefore permanently damage the ECB's ability to remove excess liquidity from the system even if full allotments were no longer applicable in the OMOs.

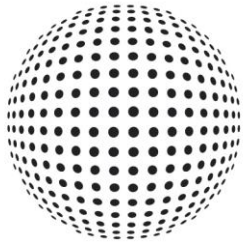
Central banks can steer short-term interest rates because they are the monopolistic suppliers of liquidity and are therefore able to lay down the terms for supplying it'

José Manuel González-Páramo,
Member of the Executive Board of the ECB 2007

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EONIA fixings would therefore no longer return to fixing 6 to 8bp above the repo rate (normal conditions) but instead would drift between the deposit rate and the repo rate depending on the banks desire to participate in the sterilization operations.

The total size of the SMP matters, as it is a permanent injection of liquidity and not a REPO, as such it would stay in the system until bonds naturally mature. During this time, the ECB would no longer have full control of rates via the OMO's but be forced to steer rates by changing the spread between the deposit rate and the repo rate (apart from begging for banks to participate in the sterilization program). In the future, in order to avoid inflationary pressures then the ECB may attempt to sterilise the excess liquidity by increasing the rate at which they sterilize the SMP program without changing the repo rate but this simply can be seen as begging with a sweetener attached. The ECB would simply become like the FED which no longer has any control in market rates as long as all the excess liquidity created by QE is still in the system. In reality, the ECB's SMP program above €450bn is the same as QE although they may not be willing to admit it at that time.

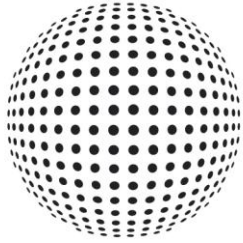
Since the need for liquidity by the banking sector is dependant on the regulatory reserves they need to post at the central bank, some may say, one possible solution would be to increase the Regulatory reserves from 2% to 10% (say) thus requiring banks to deposit close to 1.1 trillion with the ECB. This would of course force Eurosystem banks to deposit the excess liquidity back with the central bank. The problem would this change is that it represents a significant change of paradigm since Regulatory Reserves have stopped being used as a monetary tool for many years now. More importantly the reserve requirement limit is an important determinant of the money multiplier effect in the economy, a significant increase in it's value would therefore likely result in banks being forced to significantly reduce the size of their balance sheet and therefore have a huge knock on effect on the real economy.

In conclusion, increasing the size of the SMP plus covered Bond purchase program above the threshold of € 450bn poses serious problems in the implementation of the monetary policy of the ECB, which after all is one of its primary objectives. Maybe, this is the real reason why the ECB is reluctant in pursuing this bazooka option. Incidentally, many exit strategies that have been proposed, directly on indirectly suffer from this defect (Increasing permanently the ECB's balance sheet)

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Assets (EUR millions)				Liabilities (EUR millions)			
	Balance	Difference compared with last week due to			Balance	Difference compared with last week due to	
		i) transactions	ii) quarter-end adjustments			i) transactions	ii) quarter-end adjustments
1 Gold and gold receivables	420,005	0	56,756	1 Banknotes in circulation	857,372	4,882	0
2 Claims on non-euro area residents denominated in foreign currency	226,522	-155	13,659	2 Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	563,015	32,985	0
2.1 Receivables from the IMF	80,402	-7	3,308	2.1 Current accounts (covering the minimum reserve system)	204,871	-18,654	0
2.2 Balances with banks and security investments, external loans and other external assets	146,120	-149	10,351	2.2 Deposit facility	199,639	48,988	0
3 Claims on euro area residents denominated in foreign currency	35,327	1,370	2,385	2.3 Fixed-term deposits	156,500	4,000	0
4 Claims on non-euro area residents denominated in euro	19,694	-991	48	2.4 Fine-tuning reverse operations	0	0	0
4.1 Balances with banks, security investments and loans	19,694	-991	48	2.5 Deposits related to margin calls	2,004	-1,349	0
4.2 Claims arising from the credit facility under ERM II	0	0	0	3 Other liabilities to euro area credit institutions denominated in euro	3,298	-1,264	0
5 Lending to euro area credit institutions related to monetary policy operations denominated in euro	588,786	17,492	0	4 Debt certificates issued	0	0	0
5.1 Main refinancing operations	208,349	7,200	0	5 Liabilities to other euro area residents denominated in euro	59,740	-4,665	0
5.2 Longer-term refinancing operations	378,935	9,299	0	5.1 General government	51,646	-4,796	0
5.3 Fine-tuning reverse operations	0	0	0	5.2 Other liabilities	8,094	131	0
5.4 Structural reverse operations	0	0	0	6 Liabilities to non-euro area residents denominated in euro	50,036	-6,725	413
5.5 Marginal lending facility	1,414	939	0	7 Liabilities to euro area residents denominated in foreign currency	2,476	-3	149
5.6 Credits related to margin calls	88	54	0	8 Liabilities to non-euro area residents denominated in foreign currency	13,802	765	787
6 Other claims on euro area credit institutions denominated in euro	52,322	2,168	0	8.1 Deposits, balances and other liabilities	13,802	765	787
7 Securities of euro area residents denominated in euro	556,662	3,601	938	8.2 Liabilities arising from the credit facility under ERM II	0	0	0
7.1 Securities held for monetary policy purposes	219,941	3,756	280	9 Counterpart of special drawing rights allocated by the IMF	54,486	0	2,316
7.2 Other securities	336,721	-155	658	10 Other liabilities	219,590	1,702	10,536
8 General government debt denominated in euro	33,965	0	16	11 Revaluation accounts	383,276	0	66,619
9 Other assets	355,289	4,192	7,017	12 Capital and reserves	81,481	0	0

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