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How Much Fiscal Backing Must the ECB Have? – The Euro Area is not the Philippines

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Ansgar Belke

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#184

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Ansgar Belke[1]

How Much Fiscal Backing Must the ECB Have? – The Euro Area is not the Philippines

Abstract

The ECB has accepted increasing amounts of rubbish collateral since the crisis started leading to exposure to serious private sector credit risk (i.e. default risk) on its collateralised lending and reverse operations ("repo"). This has led some commentators to argue that the ECB needs "fiscal back-up" to cover any potential losses to be able to continue pursuing price stability. This Brief argues that fiscal backing is not necessary for the ECB for three reasons. Firstly, the ECB balance sheet risk is small compared to the FED and BoE as it neither increased its quasi-fiscal operations as much as the Fed or the BoE nor did it engage to a very large extent in outright bond purchases during the financial crisis. Secondly, the ECB's specific accounting principles of repo operations provide for more clarity and earlier recognition of losses. Thirdly, the ECB can draw on substantial reserves of the euro area national banks.

JEL Classification: G32, E42, E51, E58, E63

Keywords: Central bank independence, central bank capital, counterparty risk, repurchase agreements, collateral, fiscal backing, liquidity, haircuts

April 2010

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1 University of Duisburg-Essen and IZA Bonn. *– Briefing paper prepared for presentation at the Committee on Economic and Monetary Affairs of the European Parliament for the quarterly dialogue with the President of the European Central Bank, Brussels, March 2010.* *I am grateful for valuable comments to Arttu Makipaa, Hans-Helmut Kotz and Thorsten Polleit.* *– All correspondence to Ansgar Belke, University of Duisburg-Essen, Campus Essen, Department of Economics, 45117 Essen, Germany, e-mail: ansgar.belke@uni-due.de.*

"Of the ultimate solvency of the Bank of England, or of the eventual safety of its vast capital, even at the worst periods of its history, there has not been the least doubt"

Walter Bagehot, "Lombard Street", 14th ed., 1873, page 208.

1. INTRODUCTION

Given inter alia the starkly increased balance sheets of the European Central Bank (ECB) in the light of its crisis operations, this contribution investigates whether there is a clear need to think more about the fiscal "back-up" of the ECB, even if this was just for the theoretical case?

Recent institutional arrangements in the United Kingdom which ensure that the Treasury underwrites the risk attending emergency lending - such as has been the case with Northern Rock in September 2007 – are said to provide even greater assurance of the Bank of England's financial position. Anyway, until the recent crisis emerged, the Fed and the BoE have made profits uninterruptedly since decades. However, more recently concerns have been raised about (potential) financial difficulties being experienced by advanced country central banks - and in central banks in important emerging financial markets.[1]

While a vast amount of literature has emphasized the dangers of fiscal dominance influencing the conduct of monetary policy, the idea that an independent central bank could be constrained in achieving its policy objectives by its own balance sheet situation is a relatively novel idea. If one accepts this potential constraint as a valid concern, the financial strength of the central bank as a stand-alone and independent entity becomes highly relevant for ascertaining monetary policy credibility. Hence, it is necessary to assess the corporate financial structure of the central bank as a single and separated entity, especially when one is evaluating the monetary policy credibility of an independent central bank, i.e. a central bank which in a strict sense is neither constrained to pay specific dividends to government nor the recipient of automatic treasury coverage of losses (Stella and Lönnberg, 2008).

In fact, we are currently not only *far away from a fiscal "back-up" of the ECB* but, in more general terms, also from anything like a narrow notion of a 'fiscal euro area', in the same way as we dispose neither of a fiscal EU in a broader sense nor even a European Economic Government (Buiter, 2009c). Willem Buiter, for instance, has repeatedly called this shortage a *fiscal vacuum* since there is no single fiscal authority, facility, or arrangement that has the potential to recapitalise the ECB/Eurosystem as a whole in cases when the Eurosystem suffers from capital losses that call into question its capacity to conduct its monetary policies in strict accordance with its mandates to secure price stability and financial stability (Buiter, 2009a,b,c). This issue has only become pressing due to the financial crisis in which the exposure of the ECB/Eurosystem to private credit risk through its exposure to repos and other collateralised lending has increased significantly. Actually, has the global financial crisis thus silently broken at least a few barriers to the ECB's restrictions on the use of monetary policy?

[1] An early but insightful source is BusinessWeek (2003).

2. FISCAL "BACK-UP" OF A CENTRAL BANK – THE MAIN ARGUMENTS

To concede that the ECB does not dispose of any fiscal "back-up" is essentially equivalent to saying that there is no guarantee, insurance, or indemnity for any *private* credit risk it takes. Proponents of a fiscal "back-up" of the ECB argue that this is both a huge error and omission in the design of the ECB and the Eurosystem and threatens to render the ECB significantly less able than the Bank of England and the Fed to engage in unconventional monetary policy, including quantitative easing and credit easing (see, for instance, Buiter, 2009b, and Sibert, 2009).

Through repurchase operations, the ECB has increased its holdings of European government bonds for an equivalent of approximately 90 billion euros between August 2008 and July 2009. How to determine which bonds to hold remains uncertain from the point of view of the ECB. Above all, the lack of a fiscal "back-up", i.e. a fiscal authority behind the euro area, is said to make it rather difficult for the ECB to cover the potential losses from its securities investments. Inevitably, the ECB would then feel inclined to invest in the most secure bonds, even though this has the potential to increase the yield differential among government bonds in the euro area, thus impairing the objectives of monetary and fiscal convergence and making monetary policy more difficult to manage. Some propose that the bank could arbitrarily buy bonds issued by governments whose economies are diverging (such as Greece and Portugal, sic!), but doing so it would assume a political role which would heavily collide with the political independence of the ECB. What is more, this kind of implicit bailout would also endanger its strict orientation at the price stability mandate due to the moral hazard effects these targeted country-specific bond purchases would entail (Bastasin, 2009).

If one agrees in accordance with the Anglo-saxon tradition that the ECB should as the Fed and the BoE play a larger *macro-prudential financial stability* role, one should acknowledge that it is *difficult for the ECB to fulfil this role* before the issue of whether and how the Eurosystem is to be recapitalized in the event of capital losses is addressed and somehow also resolved. As long as there remains some uncertainty concerning its recapitalization, the ECB could not be as aggressive as necessary when implementing non-standard measures – in particular the introduction of full allotment at fixed rates when providing central bank liquidity in the Eurosystem monetary market operations. Hence, it cannot (completely) prevent a shortage of liquidity from becoming a widespread solvency problem with adverse effects on financial stability (Papademos, 2009). If the ECB's policy rate approaches zero, the ECB may have to engage in quantitative and qualitative easing: the outright purchase of private securities funded by an increase in the monetary base. In the absence of any fiscal indemnification for the resulting credit risk, the ECB will be unable to address the excessive private-public yield spreads and the rationing of credits which both indicate dysfunctional credit markets (Sibert, 2009).

Moreover, the current crisis reminds us once more that a central bank without adequate fiscal backing can be also *powerless in the pursuit of price stability* –in two directions. On the one hand, non-standard measures contribute to price stability by supporting the provision of credit beyond what could be achieved through the favourable impact of interest rate reductions and by ensuring that the easing of financial conditions induced by policy rate cuts would be fully transmitted to firms and households at a time when financial markets and institutions were under stress (Papademos, 2009). If the ECB risks going bankrupt as a dire consequence of conducting these measures there is the risk of undersupply of these measures and, thus, of inflation dropping below the ECB target. On the other hand, the lack of a fiscal "back-up" might induce a central bank to go for seigniorage revenue by means of additional inflation and hence there is a risk of inflation higher than target inflation. In this vein, authors like Sims (2003b) have shown that there are clear limits to a government's and a central bank's ability to credibly commit to an inflation target in the absence of a fiscal anchor. The reason is that, under stress, the

expectations of the public as to how the central bank will respond to an extreme deterioration in its financial position will determine the effectiveness of macroeconomic stabilization efforts.[2]

Hence, in the absence of any foreign assistance, the Treasury and the taxpayer are interpreted by some as the ultimate and only guarantor of the solvency of the central bank and of its ability to closely track its price stability mandate despite its financial stability responsibilities. In the literature, this interconnectedness is sometimes called the "integrated central bank and government view". The proponents of this view, argue that, as a matter of urgency, the fiscal authorities of the euro area should agree on a formula for dividing the fiscal burden of recapitalising the European Central Bank, should the need ever arise (Buiter, 2008).

3. (WHY) HAS THE ISSUE OF FISCAL BACKING BECOME VIRULENT ALSO FOR THE ECB?

"Fiscal backing" of the central bank as a necessary condition for the central bank to achieve price stability was not at all an issue for the ECB until the current crisis. What is more, the endowment of the ECB with equity capital actually appears to be more ample than that of the Fed or the BoE, mainly due to huge currency and foreign exchange reserves. However, a rather important factor behind the concern regarding central bank finances has been a global decline in inflation and consequently declining central bank income from the inflation tax. Due to the increasing importance of global liquidity, the capacity of a central bank to impose taxes on its regulated financial sector has been reduced. And even more important, as the crisis has deepened, the exposure of the ECB/Eurosystem to private credit risk through its exposure to repos and other collateralised lending has become a really pressing issue (Sibert, 2009). Why is that?

First, the ECB sticks to a rather liberal definition *of eligible collateral* – "effectively anything that does not move (and a few things that do) is eligible as collateral, as long as it originates from within the Eurozone, is euro-denominated, and is rated at least BBB-" (Buiter, 2009a). Indeed, the Eurosystem has accepted increasing amounts of rubbish collateral since the crisis started, leading to a large exposure to serious private sector credit risk (i.e. default risk) on its collateralised lending and reverse operations. For reverse transactions and collateralised lending, default risk is the risk that both the borrowing bank will default and that the collateral offered by the bank will go into default (Buiter, 2009a). What is more, Ewerhart and Tapking (2008) show that a less restrictive collateral policy applied by a central bank may well lead to a welfare improvement for market participants. Yet, their analysis also suggests that essentially *unaffected by any haircut requirement*, the least liquid and *most risky assets will be deposited with the central bank* – suggesting an intuitive analogy with Gresham's law for commodity money.[3]

Second, in many cases the exposure of the central bank to losses stems primarily from its role in putting its capital at risk by intervening in a systemic crisis to provide liquidity to financial institutions and/or their depositors and other creditors (Stella and Lönnberg, 2008). Losses frequently arise when, to borrow from Buiter's terminology, in the midst of a banking crisis the central bank with its "*short-term deep pockets*" provides risk-fraught credit and thereafter hopes to be recapitalized by "the treasury, the agency of the state with the capacity to tax [with] *long-term deep pockets*" (Buiter, 2006). This pattern can be observed in a number of countries during the 1980s and subsequently also in the more recent data as, for instance, the Dominican Republic or Costa Rica (sic!). Unfortunately,

[2] For empirical correlations of financial stress and policy performance of central banks see Klüh and Stella (2008).
[3] Gresham's law states that any circulating currency consisting of both "good" and "bad" money quickly becomes dominated by the "bad" money. However, as a precondition, both variants are required to be accepted at equal value under legal tender law. This is because people spending money will hand over the "bad" coins rather than the "good" ones, keeping the "good" ones for themselves.

obscure accounting treatments (which are the opposite of the ECB's exceptionally clear accounting principles, have often *delayed the recognition of losses* (Stella, 2002)).

And in fact, *the Eurosystem has already realised some significant marked-to-market losses on loans* it made to eligible Eurozone counterparty banks against the ABS collateral. For instance, in autumn of 2008, five banks (i.e., Bankhaus AG, the German arm of Lehman Brothers, three subsidiaries of Icelandic banks, and Indover NL) defaulted on refinancing operations undertaken by the Eurosystem. The amount involved was allegedly over €10 billion, and over €5 billion of provisions have been made against these impaired assets, because the mainly ABS precarious collateral is, under current market conditions, worth rather less than €10 billion (Buiter, 2009b). Although the insolvent counterparties had submitted eligible collateral in exchange for ECB funding, their collateral, mainly ABS, was in the words of a 2009 ECB press release characterized by "... limited liquidity under the present exceptional market conditions and some of the [asset-backed securities] need to be restructured in order to allow for efficient recovery, ..." (ECB 2009, Sibert, 2009).

A final explanation of the growing attention being paid to central bank finances would be that it could simply be considered to be a *by-product of the increased attention given to central bank independence* in general during the last two decades. A particularly prominent example of this pattern is the interpretation by the European Union of financial independence as one of the key components of central bank independence. The creation of the ECB led to considerable thinking about central banking best practice in general and to central bank independence in particular (Belke and Potrafke, 2009, Stella and Lönnberg, 2008).

Who will finally come up for the losses?

Any losses registered as a consequence of the above mentioned defaults are, like all losses incurred by the Eurosystem in the pursuit of its monetary and liquidity operations, to be shared by all 16 national central banks in proportion to their shares in the ECB's capital. But while the Eurosystem as a whole shares any losses incurred by its individual national central banks, no fiscal authority stands directly behind the ECB, and, hence, there is *no mechanism for recapitalizing the Eurosystem as a whole* available (Buiter, 2009b). Instead, each national fiscal authority stands financially behind its own NCB (Buiter, 2008). The Bank of England can turn to HM Treasury and the Fed can turn to the US Treasury, but to what body does the ECB turn to for fiscal backing? Is it the 16 euro zone Treasuries or ministries of finance? Or the 27 EU Treasuries or ministries of finance that are the shareholders of the ECB? Hence, the ECB's lack of fiscal backing is in any case *unusual* among major central banks (Buiter, 2009a).

Again, also from this perspective, one might feel to arrive at the conclusion that currently there appears to be a *vacuum* behind the ECB and the Eurosystem with respect to losses incurred by the Eurosystem in the wake of monetary operations, liquidity interventions and credit-easing policies (Buiter, 2009c, and Sibert, 2009). The intriguing fact that there is a host of fiscal authorities which would have to coordinate in order to provide some "back-up" to the ECB if it develops balance sheet problems suggests that such "back-up" is at least more uncertain than in the US (Sims, 2003b). However, the question whether this uncertainty is good or bad for the case of the euro area will be tackled in the next sections of this contribution. Let us now turn to the question whether central banks can go bankrupt like their commercial bank counterparts. Answering this question with "Yes" is a necessary condition for a fiscal "back-up" to be beneficial for a central bank.

4. GENERAL CONSIDERATIONS

Can central banks go bankrupt?

Admittedly, to investigate whether a central bank can go bankrupt does not belong to every-day research in monetary economics. In this context, it is advisable to start with the basic insight that is not necessarily the case that a central bank goes bankrupt even if its equity capital is completely depleted by its engagement in unorthodox monetary policies.[4] The reason is that there are differences between central banks and commercial banks and a static visual inspection of the central bank balance sheet does not convey a complete picture. Whereas the Fed is always able to recapitalize itself through the issuance of base money if its liabilities are denominated in domestic currency (hence, Iceland is no example here) and not index-linked, doing so may not be optimal or even acceptable, even though it is feasible.[5] The reason is that self-recapitalisation through seigniorage may generate undesirably high rates of inflation.[6] It should be obvious that the central bank can make the nominal present discounted value of current and future seigniorage pretty much anything it wishes it to be. For instance, the Fed could buy up the entire outstanding stock of privately held US Federal debt today, i.e. it could be able to monetise the public debt (see, among others, Buiter, 2008). To illustrate this mechanism more deeply, let us turn to a typical US example: let's say the mortgages continue to deteriorate in price (which is highly likely given the nature of our rating system to make them AAA) and then the banks are in no shape to take them back. If the Fed is stuck with declining assets it will have a capital problem as well. But if the Fed loses capital it will not go bankrupt like a regular company: it will just print the money to make up the difference – and this is meant literally!

Seigniorage and inflation tax as straight ways out from bankruptcy – the inevitable menace of future inflation

But even the repayment of liabilities in own currency by creating additional amounts of money tends to pose difficulties. This is because a central bank creates inflation dangers by printing additional money designed to avoid bankruptcy. The inherent problem with this solution is that the citizens have finally to pay for the risks originally incurred by the central bank. For instance, such losses diminish the profits made by the ECB which is finally distributed to the Bundesbank. But there is a much larger and nearly inevitable danger connected with it - inflation. The ECB cannot go bankrupt according to common comprehension because "it is sitting at the fountain-head of money" which it can create by itself.

However, if inflation is chosen as the preferred way-out, there is the danger that consumers have to pay with increasingly higher goods prices for the incompetence of monetary policy. Hence, authors like Buiter presume that in case of a crisis of a central bank the related government will increase the equity capital of the latter. Hence, in the absence of foreign assistance, the Treasury and the taxpayer should, according to the "integrated central bank and government view", be the ultimate and only guarantor of central bank solvency and of its ability to pursue its price stability mandate despite its financial stability responsibilities (Buiter, 2008). But beware that in this case, then, the tax payer would have to atone for the incompetence of its central bankers (Buiter, 2009a,b,c, Sims, 2003b)

[4] By the way, there are central banks around in the world which are not endowed with any equity capital. One prominent example is often said to be the Bank of Canada.

[5] However, problems arise if a central bank has to settle its liabilities in foreign currency which it cannot create on its own. One prominent example is Iceland whose leading commercial banks are indebted mainly in foreign currencies. The Central Bank of Iceland cannot support its commercial banks during the current crisis because it can merely produce Iceland kronas but no foreign currencies.

[6] See Buiter (2008). In addition, there are limits to the amount of real resources the central bank can appropriate by increasing the issuance of nominal base money. Sims (2003b) shows more formally that central bank depends on fiscal cooperation and back-up under certain conditions if it is to guarantee a stable price level.

Certainly, up to now the Fed possesses the tremendous advantage that its "clients" cannot storm the institute in order to withdraw their deposits as would be the case of a bank-run with respect to commercial banks. What is more, the Fed disposes of some other possibilities which allowed her to get away with red balance-sheet figures already in the past. For instance, the US government is allowed to directly recapitalize the Fed by means of freshly printed bonds.

If the Fed or the ECB were to experience minor perturbations in the strength of their balance sheets, fiat money could cover them either immediately or through the retention of future seigniorage. But it is actually *dangerous to extrapolate too far from the local equilibrium when experience is no guide* (Stella and Lönnberg, 2008). What happens, for instance, with central bank credibility and independence from the viewpoint of the markets if the US government recapitalizes the Fed directly with newly printed government bonds again and again?

Which options does the euro area have in view of the perceived flaws?

In view of the scenarios depicted in the preceding sections, the euro area has *several options* to choose from.

First, it is important to note in this context that the ESCB has already seized one option – although this has nothing to do with a systematic fiscal "back-up" - in the framework of its open market operations. It has extended the maximum maturity of its fixed-rate credit (against eligible collateral) from six months to up to two years in order to avoid materialized losses from huge depreciations of the underlying assets.

Second, the ECB/Eurosystem might receive a full, joint-and-several guarantee for the credit risk (default risk) involved from the 16 euro area national governments. Without such a guarantee, the ECB/Eurosystem can pursue its financial stability objectives only by risking its capacity to pursue its price stability mandate. As has been shown in the preceding section, this is exactly because in the absence of a fiscal "back-up" a central bank has to avoid bankruptcy by going for high inflation to capture sufficiently high seigniorage revenues. Buiter (2009c), for instance, proposes three alternatives:

(a) a supranational euro area-wide tax and borrowing authority which is preponderantly responsible for the fiscal backing for the ECB/Eurosystem as the less probable but most suitable solution,

(b) a euro area-wide fund, financed by the 16 euro area governments (proportionally, for example, to their relative shares in the ECB's capital), which the ECB/Eurosystem could draw upon (of course subject to qualified majority support in the Eurogroup) if it were to suffer losses as a result of euro area-wide monetary policy, liquidity and credit-easing operations, or

(c) an ad hoc, hastily agreed upon fiscal burden sharing rule for the 16 euro area national governments to restore the capital adequacy of the ECB/Eurosystem. This is the less suitable but most realistic one.

However, it seems wrong to apply the "perceived flaws" argument to the ECB without any qualifications, whereas it might be entirely plausible in the context of developing and emerging countries and Iceland with their high foreign dependence and, since the start of the financial crisis, also for the Fed and the BoE. Moreover, there might be some more general and fundamental arguments speaking against the advantages of a fiscal "back-up" of a central bank even in industrialized countries. Let us elaborate on them in the following sections.

5. ARGUMENTS AGAINST AN EXPLICIT FISCAL „BACK-UP" OF THE ECB

In order to derive some arguments against an explicit "back-up" of the ECB it makes much sense to start from the following question. Does it really make a difference to tax the people directly via enhancing money growth and inflation in order to increase revenues from seigniorage and the inflation tax or to incur additional government debt in order to recapitalize the central bank (or, even worse, to let the government sign any desired amounts of pieces of papers and with a stroke of a pen declare them to be government bonds)? How effective are both strategies if the public scrutinizes them as being not more than accounting tricks? Is this a sustainable way out of the crisis? I would like to argue that the obvious answer is "No".

The Fed situation as a reference point

The Fed is still able to masterfully conceal the true state of its balance sheet. Nobody is forcing her to carry out due depreciations of the mortgage-backed securities (MBS) held. However, this kind of behaviour cannot continue forever: at one point in time, the Fed will have to go through its balance sheets and, then, will have to absorb the resulting minus amount by actuating the printing press or by exploding US government debt. This might exactly be the moment in which the Fed looses control over inflation rates. A so-called "black swan" event may occur.

In this context, one should always be aware of the fact that the Federal Reserve note is mere paper, i.e. fiat money which cannot be redeemed for anything tangible such as gold or other commodity. When people realise that the Federal Reserve note is not even secured by US treasuries and or the Fed has real tangible assets, but its balance sheet is littered with junk bonds and toxic waste, there will be a run on the Fed, i.e. when Americans and foreigners no longer have faith in the Federal Reserve notes as "money" and in the US government as a solvent institution.[7]

Installing a fiscal "back-up" cannot prevent this in the end, as recently expressed forcefully by Nouriel Roubini: "The process of socialising the private losses from this crisis has already moved many liabilities of the private sector onto the books of the sovereign. At some point a sovereign bank may crack, in which case the ability of the government to credibly commit to act as a backstop for the financial system - including deposit guarantees - could come unglued."[8] From this perspective, the US scenario appears to be even worse and less sustainable than that of Greece and much worse with respect to its potential impacts on the "rest of the world". But why then transferring the concept of a fiscal "back-up" to the ECB at all? Would this be legitimate then?

The US have actually tackled the problem of melting asset values in its own balance sheet in a more pragmatic fashion as any other country. The linchpin is constituted by the *alliance between the government and the central bank, i.e. among the (seemingly) bankruptcy-resistant but liquidity dryout exposed US Treasury and the always liquid but bankruptcy-prone Fed*. As Roubini (2009) expressed it: "Thus, the U.S. financial system is de facto nationalized, as the Federal Reserve has become the lender of first and only resort rather than the lender of last resort, and the U.S. Treasury is the spender and guarantor of first and only resort."[9]

[7] If a debt rescheduling will become necessary, there will be an advantage for the US: the majority of its creditors is located in foreign countries and will have, as in the case of Argentina, to consider themselves satisfied with lower quotas. This will be valid above all for the Eurpean claims.
[8] See http://www.globaleconomiccrisis.com/blog/archives/164.
[9] See http://www.forbes.com/2009/03/04/global-recession-insolvent-opinions-columnists-roubini-economy.html.

Assessment of the ECB situation

I would like to argue that the ECB/Eurosystem is not yet hurting for financial substance, however (although it is highly impacted by the potentially dramatic US scenario, for instance, via global liquidity transmission). For instance, the Eurosystem's income from monetary policy operations was probably around €28.7 billion in 2008. A high degree of price stability and large denomination notes (including €500 and €200 notes, while the best the US can come up with is a $100 bill) make the euro "the currency of choice for tax evaders, tax avoiders, money launderers, and other criminal elements everywhere. This makes for massive seigniorage revenue for the ECB and the Eurosystem" (Buiter, 2009b).

ECB: substantial safety measures

The decisive question is how many ABS papers are currently deposited as collateral with the ECB by the commercial banks and how large the risk is assessed to be. The ECB itself refers to several safety measures such as the adjustment of haircuts which are intended to keep the ABS risk as small as possible (ECB 2008, Section 6.4). Moreover, the rating standards have been tightened for ABS papers which are accepted by the ECB. This is meant to hinder the depositing of worthless junk ABS papers with the ECB by the commercial banks.

In September 2008 Jean-Claude Trichet provided details about the new liquidity rules, which will come into force in February 2009, to give the banks time to adjust. From the onwards, the ECB applied a haircut, or discount, on asset-backed securities (ABS) of 12%, in addition to a 5% valuation discount for assets that are not marked-to-market (which is the case with most of these assets), making for a cumulative haircut of 16.4%.[10]

However, a critical point which deserves closer investigation with respect to the ECB balance sheet is whether impairments prevailing with these asset-backed securities are much larger than the corresponding haircuts. Moreover, it is well known that bad collateral drives out good collateral in lending relationships with the central bank and that such replacement is not likely to be stopped by an adjustment of haircuts (Ewerhart and Tapking, 2008). In the end, this is equivalent to checking whether some risk of losses has been rolled over to the public. Finally, nobody should deceive herself with respect to the ABS securities deposited with the ECB: the bank risks which are borne by the government and the central bank and, with this, by all citizens via higher future inflation and/or taxes are probably so huge that it cannot be excluded that the bill cannot be paid for in the emergency case.

Moreover, it is currently very attractive for commercial banks in some economies like the US and the UK *to off-load their potentially toxic assets* still included in their balance sheets *at the central bank*. The liquidity received in return is not used for the extension of credit to the private sector but to lower the risk weighted capital adequacy ratio. By this, the banks must provide less equity capital as without the generous liquidity provision. In addition, the intake of potentially toxic assets as collateral in the central bank balance sheet *artificially keeps the corresponding asset prices up*. To avoid such kind of problematic issues, any exit strategy should rather also consider how to deal with the asset side of the ECB's balance sheet. However, a closer look at the ECB statute (Art. 18) on open market and credit operations reveals that the above passages referring to toxic papers might be valid, for instance, preponderantly with respect to the Fed and the BoE but certainly less so for the ECB (European Central Bank, 2008), due to the specific accounting principles of repo operations in the euro area and the reserve liabilities of the national euro area central banks which are sufficiently endowed with reserves to cope with serious shocks to the system. The above mentioned moral hazard appears to be prohibited to a much larger extent in the euro area (Belke, 2009).

[10] For unsecured loans, the ECB started to apply a haircut of 5%, which is a very significant change, since this is the largest asset class.

Actually, the strategy pursued by the Fed was rather different than that of the ECB. In order to improve the liquidity of the system most central banks also put in place non-conventional interventions, with the specific objective of ensuring sufficient liquidity to the interbank market, and de facto substituting commercial banks in that market. Open market operations have been reinforced notably by expanding the range of assets accepted as collateral, and to include assets whose value was difficult to determine in the market, thus transferring some of the bad loans onto the balance sheets of the central banks. Furthermore, central banks have increased their exposure, by engaging in longer term loans to the banking sector. Hence one of the common features to the reaction of central banks such as the Fed and the BoE has been to hugely increase their quasi-fiscal operations without entering into formal agreement with the treasuries. However, the ECB has to be treated differently in this respect. It primary dealt the subprime crisis with through short term refinancing operations, which provided the very short term liquidity that the system needed, without nevertheless increasing the long term amount of money.

What is more, *there might not even be any significant and obvious need of fiscal backing* because the ECB *did not engage to a very large extent in outright bond purchases*, except the covered bond purchasing programme with a ceiling of EUR60 billion and - partly by definition - highest possible quality standards. This strategy of not engaging in risky bond purchases of unspecified duration is down to more than good luck. It is partly due to different mandates and partly due to differences in severity of the crisis and the different degree of exposure to securitization and bank-dependence in the two zones (Belke, 2009). However, we would like to concede that there is a certain problem of the ECB at hand with the securities underlying its repos, i.e. a too low haircut. However, this "problem" does not appear to take systemic dimensions.

6. GENERAL ARGUMENTS AGAINST FISCALLY "BACKING UP" A CENTRAL BANK

Some argue that fundamental problems arise when the central bank, voluntarily or under political pressure(!), engages in risky financial transactions on behalf of the Treasury, but without a full guarantee from the Treasury for the losses it may incur as a result of these risky quasi-fiscal actions as is the case of the Fed today but less so in case of the much more independent ESCB (Buiter, 2009a). However, at least with respect to the ECB and its institutional surroundings one should clearly call into question any necessity to force the central bank into overly risky financial operations. In this respect, it is extremely useful *to carefully separate* the *recognition of financial losses* and the *actual causes of the losses* and to learn from the daunting experiences with Japan (Business Week, 2003). The financial status of the Bank of Japan has been the subject of rather intense debate in recent years particularly owing to the balance sheet risk it has undertaken as part of its (in the end, inefficient) quantitative easing policy associated with prolonged deflation (Stella and Lönnberg, 2008).

Since 1997, the central bank's outright purchases - as opposed to repurchase agreements - of Japanese government bonds have exploded. To keep the money markets flush with cash, the bank has devoured billions in bonds on the secondary market. At that rate, it has absorbed a dominant share of all new Japanese government bond issuance in some years. On top of that, it has bought billion worth of stocks from commercial banks, which needed to sell off their corporate shares to raise cash. And the central bank has been under intense pressure from the during those times ruling Liberal Democratic Party and its allies in the Finance Ministry to buy more stocks, more corporate bonds, and even real estate. Insiders worried more and more about the huge growth in the bank's potential liabilities and argued that there should be a limit to the bank's discretionary purchase of such risky assets. The reason is not only that these kind of policies proved to be ineffective but also that massive central bank bond purchases could set the stage for a bubble that would drive prices skyward and make the BoJ more and more dependent from the government standing ready

to bail out the BoJ in case of emergency (for a vivid analysis of the issues see, for instance, Business Week, 2003, and various other sources).

Hence: whether central banks should be forced into overly risky financial operations is another matter and indeed there are good reasons for central banks to avoid this and other "quasi-fiscal" activities. Given that government financial responsibility for such operations is often slow to be assumed, outright prohibition of them may be the best course of action to preserve independence (MacKenzie and Stella, 1996, Stella and Lönnberg, 2008).

I would like to argue that there are additional arguments which tend to speak against a systematic fiscal backing up of a central bank. Among them are the following:

1. Risks consist of the conditions that could be imposed on the central bank in the event of an injection of capital by the state (fiscal backing) turning out or, at least, perceived to be necessary. Admittedly, in case of a missing fiscal backing, central banks might feel forced to change policies in order to reduce losses in some cases. But a fiscal "back-up" could also *undermine the ability of the central bank to conduct its monetary policy*.[11] That is because one cannot rule out the possibility that the capital injection would come with *special conditions* attached constraining the central bank's activities. Nor is it possible to exclude the possibility that the central bank's financial weakness, even if it is a direct consequence of its central bank mandate, could be exploited by the principal with the aim of replacing an awkward bank management by not discharging it from liability. As the political business cycle literature shows, this could be well the case with a leftist government and hard-nosed central bankers and the other way round (Ernhagen, Vesterlund and Viotti, 2002, and Belke and Potrafke 2009).[12]

   To summarize, from the viewpoint of an independent central bank the point is that the actions necessary to avoid its own financial default circumscribe the strength of the policy outcome the central bank can orchestrate - even if we are supposing it has no financial commitment to its shareholder(s) and no domestic currency liquidity constraint (Ize, 2005). Thus the interesting focus of analysis is not whether the central bank can avoid technical insolvency but whether the central bank can meet its policy commitments given its financial situation (Stella, 1997).

2. In a number of countries in which the central bank is endowed with a certain kind of fiscal "back-up" it can safely be said that the central bank is both the manager and obligor of the sovereign's domestic debt. In those cases the *conflict of interest* that is usually present between the government and central bank - raising interest rates to influence inflation leads to higher sovereign debt service cost (at least in the short run) – *is not solved at all but is just moved to another level and is now observed within a single institution* (Stella and Lönnberg, 2008). That said, a bailout of a central bank via a fiscal "back-up" could forever undercut a central bank's independence.

3. The fact that operations of fiscal "back-up" usually take place *in the context of government fiscal distress* suggests why it is particularly innocent to assume that government will "stand behind" the central bank in a timely way to ensure that policy commitments are met. The power to tax, often cited as the ultimate guarantor of the currency, is unlikely to be employed precisely during those extreme circumstances when the central bank would require backing for its operations. Indeed, it is precisely during those circumstances that the inflation tax is seen as an efficient tool and price stability a dispensable luxury. Experiences worldwide suggest

[11] Goodfriend (1994), for instance, has noted that Congress does have the power to reduce Fed surplus and that "If carried far enough, stripping the Fed of its liquid assets would obviously interfere with its ability to conduct monetary and credit policy. Equally important, however, it would undermine the Fed's financial independence by denying it enough interest income to finance its operations without having to ask Congress for appropriations or resorting to inflationary money creation."

[12] However, a counter-argument could run as follows: if a central bank can rely on such back-up, it will need to invoke it only very rarely, so its effective degree of independence may be still quite great. For this line of reasoning see, for instance, Sims (2003a,b).

that *Buiter's treasury's "deep long pockets" may be quite deep and in the end - or at least during a very material time frame - potentially empty* (Stella and Lönnberg, 2008).

4. There is the danger that any fiscal "back-up" in a strict sense might represent not more than a mean but artful thimblerigger trick. In principle, the US Government is able to recapitalise the Fed by means of newly printed government bonds again and again, i.e. the government signs any desired additional amounts of pieces of papers and declares them with a stroke of a pen to represent government bonds (which by itself has a damaging effect for the reputation of the already circulating US bonds). This case is illustrated in Figure 1 below. Suppose that the value of the equity capital of a certain central bank has diminished to (only) 10. Letting the value of the envisaged "back-up" amount to be 20, it becomes immediately clear that the value of the monetary base on the RHS of the balance sheet must automatically increase by 20 as well – independent on how valuable the additional claims on the government are de facto and how credible their value is to market agents.

   However, how valuable the additional claims on the government are de facto and how credible their value is to market agents has a decisive bearing on whether we are legitimized to equate the increase of the monetary base with an increase in truly debitable equity capital. The lack of credibility of such kind of solution is immediately visible to everyone in the markets, a fact which will almost surely feedback to the sustainability of the fiscal "back-up" solution. From a theoretical perspective Sims (2003a) notes that in general equilibrium models— "..uniqueness and stability of the price level depends on beliefs of the public about how the system would react in the face of extreme circumstances like very high inflation, severe financial instability, or deflations in which the zero lower bound on nominal interest rates is approached." As already stated above: under conditions of stress, the expectations of the public as to how the central bank will respond to an extreme deterioration in its financial position will decisively impact on the effectiveness of macroeconomic stabilization efforts.

Figure 1

Assets	Balance sheet of the central bank		Liabilities
Assets	100	Sight deposits	90
Claims on government	*+20*	Equity capital	*+10*
			+20
	120		*120*

Even worse: the root of long-standing problems of central bank refinancing has been the provision of too much credit to ailing banking systems. Fiscal backing of central banks certainly will not diminish this tendency, on the contrary, it cannot be excluded that fiscal backing leads to a vicious circle depicted further above when we analyse the Fed situation as a reference point. One should not follow the Fed in this respect and should not provide a fiscal "back-up" of the ECB. This is valid also with an eye on the structural breaks in the relation between the Fiscal government and the central bank in Germany in the years 1923 and 1948. The latter were based on and in the end were also caused by a debt and inflation dynamics which has mainly been driven by the incentive system inherent in the political process as a reaction to the demands of influential interest groups. The only possible counter-measure would be the changeover of the monetary order from a fiat to a commodity-based currency.

Taking this as a background, a particularly cynical view is that the treasury always controls central bank finances, whatever the law or practice might suggest. Hence, the "integrated

public finance" view is valid always and everywhere. In this vein, Buiter (2006) argues that although a central bank may be able to resist, for a certain time, any attempts by the treasury to appropriate its assets, "ultimately, a determined treasury will be able to overcome such obstacles, be they conventions, laws or constitutional arrangements, provided there is popular political support for such depredations." While I do not exclude this statement to be valid in the very long run, I do certainly *agree to a lesser extent* with his notion that in realistic scenarios such as today's euro area where there is political support for central bank independence, laws, institutional arrangements and central bank financial strength are *irrelevant* for credibility and policy outcomes across a meaningful time horizon. In the long term, of course, all laws, arrangements and constitutions are able to be modified (Stella and Lönnberg, 2008). Where shall we go from here?

7. CONCLUSIONS

In reality, many countries have found themselves in "extreme circumstances" and their experience suggests that the current ECB situation is not at all representative of the issues facing a number of developing or emerging market central banks and, nowadays, also the Fed and the BoE on a daily basis (Stella and Lönnberg, 2008). Hence, we would like to argue that it *does not seem to be true-to-fact* and would represent an exaggeration *if one makes a systemic case out of some problems of adequate haircuts underlying repo operations* and takes it as an argument in favor of a fiscal backing of the ECB.

In other regions of the world, however, central bank financial problems have turned out to be quite prominent for decades, in particular, those difficult situations where central bank financial structures have been weakened by quasi-fiscal operations. In these astonishingly widespread cases, central banks have proven to be unable to meet their most basic functions (among others, the supply of banknotes) due to financial distress. They have changed policy in order to reduce losses and, in at least one case, i.e. the Philippines, have even been forced into liquidation. But the Philippine Central Bank is not the ECB – not least due to the specific accounting principles of repo operations in the euro area and the reserve liabilities of the euro area national central banks (Stella and Lönnberg, 2008).

Proponents like Greenspan, Lindsey, Goodhart and Buiter, among others, strongly advise to have a fiscal "back-up" of a central bank by the government. Of course, this represents quite an unequivocal and strong form of the *integrated central bank and government view*. Both currency and deposits at the central bank—the entire monetary base—are considered to be the direct liability of the government. However I would like to argue that, at least for the euro area, this is *neither a valid assumption nor a good recommendation*. Interestingly enough, such a distinction between monetary regimes - there are those where the state explicitly or implicitly stands behind the central bank and those where it does not - is the essential starting point for the formal analysis of the fiscal "back-up" issue in Sims (2003a).

Seen on the whole, thus, instead of striving for a fiscal backing of the ECB, political actors in the euro area should instead and under all circumstances *continue to avoid such an "anything goes" monetary policy* under which the central bank could seek to relieve the debt burden of banks and corporations by adding more stocks, corporate bonds, and real estate to its portfolio. The main idea of this policy would be not only to stop potential deflation but generate inflationary expectations that would give companies pricing power and give an incentive to consumers to start spending again. But exactly this is far from happening, because market agents do not find this booking trick overall credible. What is more, experiences worldwide suggest that Buiter's treasury's "deep long pockets" may be quite deep and in the end - or at least during a very significant time frame - potentially empty (Stella and Lönnberg, 2008). If an "anything goes" monetary policy is further on avoided in the euro area, a fiscal "back-up" of the ECB will *not* be needed, even if this was just for the theoretical case.
Watch out, ECB: a central bank's credibility is one asset that's irreplaceable!

REFERENCES

- Bastasin, C. (2009), Is King Euro Naked?, Realtime Economic Issues Watch, Peterson Institute for International Economics, Washington/DC, October 28th.
- Belke, A. (2009), Global Liquidity and Monetary Exit Strategies – Options for the Euro Area, Briefing paper prepared for the Committee on Economic and Monetary Affairs of the European Parliament for the quarterly dialogue with the President of the European Central Bank, Brussels, December.
- Belke, A., Potrafke, N. (2009), Does Government Ideology Matter in Monetary Policy? A Panel Data Analysis for OECD Countries, Paper presented at the Annual Meeting of the European Public Choice Society (EPCS), April 2-5, 2009, Athens.
- Buiter, W.H. (2006), How Robust is the New Conventional Wisdom in Monetary Policy?" mimeo, European Institute, London School of Economics and Political Science, June 2006. Paper presented at the 2006 Central Bank Governors' Symposium "Challenges to Monetary Theory", at the Bank of England, on June 23, 2006, p. 44.
- Buiter, W.H. (2009a), Fiscal Dimensions of Central Banking: the Fiscal Vacuum at the Heart of the Eurosystem and the Fiscal Abuse by and of the Fed: Part 1, 24 March 2009, Vox EU, Web: http://www.voxeu.org/index.php?q=node/3333.
- Buiter, W.H. (2009b), Fiscal Dimensions of Central Banking: the Fiscal Vacuum at the Heart of the Eurosystem and the Fiscal Abuse by and of the Fed: Part 2, 24 March 2009, VoxEU, Web: http://www.voxeu.org/index.php?q=node/3334.
- Buiter, W.H. (2009c), III Fiscal Dimensions of Central Banking: the Fiscal Vacuum at the Heart of the Eurosystem and the Fiscal Abuse by and of the Fed: Part 3, 25 March 2009, Vox EU, Web: http://www.voxeu.org/index.php?q=node/3340.
- Buiter, W.H. (2008), Can Central Banks Go Broke?, CEPR Policy Insight No. 24, Centre for Economic PolicyResearch, London, May.
- Business Week (2003), Is the Bank of Japan Barreling toward a Bailout?", February 3, Web: http://www.businessweek.com/magazine/content/03_05/b3818169.htm.
- Chang, M. (2009), The Federal Reserve is Bankrupt - How Did It Happen and What Are the Ugly Consequences?, Global Research, Canada, March 10, Web: http://www.globalresearch.ca/index.php?context=va&aid=12648.
- Ewerhart, C., Tapking, J. (2008), Repo Markets, Counterparty Risk and the 2007/2008 Liquidity Crisis, ECB Working Paper 909, European Central Bank, Frankfurt/Main.
- European Central Bank (2009), Eurosystem Monetary Policy Operations in 2008, Press Release, Frankfurt/Main, 5 March.
- Ernhagen, T., Vesterlund, M., Viotti, S. (2002), How Much Equity Does a Central Bank Need?, Sveriges Riksbank Economic Review 2/02, Stockholm.
- European Central Bank (2008), The Implementation of Monetary Policy in the Euro Area, Frankfurt/Main.
- Goodfriend, M. (1994), Why We Need an 'Accord' for Federal Reserve Credit Policy: A Note," *Journal of Money, Credit and Banking*, Vol. 26, No. 3, pp. 572–580. Reprinted in Federal Reserve Bank of Richmond, 2001, *Economic Quarterly*, Vol. 87, No. 1.
- Ize, A. (2005), Capitalizing Central Banks: A Net Worth Approach" *IMF Staff Papers*, Vol. 52/2, International Monetary Fund, Washington.

- Klüh, U., Stella, P. (2008), Central Bank Financial Strength and Policy Performance: An Econometric Evaluation, IMF Working Paper WP/08/176, International Monetary Fund, Washington/DC.
- MacKenzie, G.A., Stella, P. (1996), Quasi-Fiscal Operations of Public Financial Institutions, IMF Occasional Paper No. 142, International Monetary Fund, (Washington.
- Papademos, L. (2009), Financial Stability and Macro-prudential Supervision: Objectives, Instruments and the Role of the ECB, Speech at the conference "The ECB and Its Watchers XI"Frankfurt/Main, 4 September.
- Sibert, A. (2009), What Role Should the ECB Play in Financial Market Supervision, Briefing paper prepared for the Committee on Economic and Monetary Affairs of the European Parliament for the quarterly dialogue with the President of the European Central Bank, Brussels, March.
- Sims, C. (2003a), Fiscal Aspects of Central Bank Independence, mimeo; Princeton, New Jersey: Princeton University, February 15.
- Sims, C. (2003b), Limits to Inflation Targeting, mimeo; Princeton, New Jersey: Princeton University, March 17.
- Stella, P. (2002), Central Bank Financial Strength, Transparency, and Policy Credibility, IMF Working Paper WP/02/137, International Monetary Fund, Washington/DC.
- Stella, P. (1997), Do Central Banks Need Capital?, IMF Working Paper 97/83, International Monetary Fund, Washington/DC.
- Stella, P., Lönnberg, A. (2008), Issues in Central Bank Finance and Independence, IMF Working Paper WP/08/37, International Monetary Fund, Washington/DC.