



DIRECTORATE GENERAL FOR INTERNAL POLICIES  
POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

# A More Effective Euro Area Monetary Policy than OMTs - Gold-Backed Sovereign Debt

NOTE

## Abstract

This note argues that using gold as collateral for highly distressed bonds would bring great benefits to the euro area in terms of reduced financing costs and bridge-financing. It is mindful of the legal issues that this will raise and that such a suggestion will be highly controversial. For this purpose, it brings gold into the debate and outlines the value of Europe's gold reserves. It also explains that gold has been used as collateral in the past and how a gold-backed bond might work and how it could lower yields in the context of the euro crisis. This move is then compared to the ECB's now terminated Securities Markets Programme (SMP) and its recently declared Outright Monetary Transactions (OMTs). Namely, a central bank using its balance sheet to lower yields of highly distressed countries where the monetary policy transmission mechanism is no longer working. Beyond some similarities between the moves, the specific benefits of using gold in this manner vis-a-vis the SMP and the OMTs are highlighted. For instance, there is no transfer of credit risk between high risk/low risk countries, losses are borne by specific countries and not by the largest shareholder of ECB. It would turn out to be more transparent and it would not be inflationary and would foster reforms.

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## EXECUTIVE SUMMARY

This note looks at the problems underlying the current escalating crisis which essentially represent the trigger for the active involvement of the ECB in euro area rescue activities. It stresses that the breakdown of the monetary transmission mechanism has exacerbated the problem which is mirrored by the ECB's sovereign debt market and Long-Term Refinancing Operations (LTRO) activity. It then introduces into the basic characteristics of the ECB's now terminated Securities Market Programme (SMP) and its follower, the Outright Monetary Transactions Programme (OMT).

As a next step, gold is brought into the debate. For this purpose, the value of Europe's gold reserves is outlined. Moreover, it is explained that gold has been used as collateral already in the past. This is followed by an explanation how a gold-backed bond might work and how it could lower yields. Chapter 6 deals with some legal issues involved.

In the main part of the note, the move towards a gold-backing of selected euro area sovereign bonds is compared to the SMP and the OMT. Both programmes relate to a central bank using its balance sheet to lower yields of highly distressed countries where the monetary policy transmission mechanism is no longer working. Similarities and differences between the two programmes are highlighted. Many benefits of using gold in this manner vis-à-vis the SMP and the OMT are derived. For instance, the absence of any transfer of credit risk between high risk and low risk countries, the fact that losses are borne by specific countries and not the largest shareholder of the ECB, and, finally, that it would not be inflationary. Finally, the likely spread of political views across the euro area Member States and institutions is considered. For this purpose, the note focuses upon how entrenched those views may be and how one might build a consensus towards such a solution in Europe.

## 1. INTRODUCTION

With the Outright Monetary Transactions (OMT) programme, the European Central Bank opened up its third round of secondary bond market purchases on 6. September 2012. Whether they deliver a permanent reduction in bond yields in the South is highly uncertain. If this latest round fails, then Europe's options look grim. Austerity and growth programmes have not met expectations and the outlook is further clouded by the fact that the funds available from the IMF and EFSF/ESM are dwindling as a result of other bailouts. Europe is running out of time and options.

The SMP has always been a controversial option, riddled with potential dangers. It was seen by many as a de facto fiscal transfer from the North to the South and, moreover, a transfer made without democratic consent. By showing willingness to buy the debt of poorly performing countries, the SMP was seen as reducing incentives for necessary long-term reforms. In addition, although the ECB tried to 'sterilise' these transactions, this is far from an exact science, leaving a risk of higher money supply fuelling inflation.

An alternative manner in which to lower yields might be to issue securitised government debt, for example, with gold reserves. This could achieve the same objectives as the ECB's bond purchases programmes, but without the associated shortcomings. This would clearly raise legal issues but then so too did the ESM, SMP and OMT. This would not work for all countries but would for some of those in most need. In fact, Italy and Portugal have gold reserves of 24 percent and 30 percent of their two-year funding requirements. Using a portion of those reserves as leveraged collateral would allow those countries to lower their costs of borrowing significantly.

Making use of the national central banks' gold reserves is much more transparent than the OMTs, much fairer, and would make it easier to get genuine consent amongst the euro area population and the European Parliament. Nor does it lead to unmanageable fiscal transfers from the North to the South with huge disincentive effects. It does not shift toxic debt instruments onto the ECB. And it does not cause sterilisation problems or increase the difficulty of exiting unconventional monetary policy. Simply speaking, a gold-based solution is much less inflation-prone and does not reduce incentives for the reform of beneficiary countries.

The remainder of this note proceeds as follows. Chapter 2 looks at the problems underlying the current escalating crisis which essentially represent the trigger for the active involvement of the ECB in euro area rescue activities. It is stressed that the breakdown of the monetary transmission mechanism has exacerbated the problem which is mirrored by the ECB's sovereign debt market and LTRO activity. Chapter 3 introduces the basic characteristics of the ECB's now terminated Securities Market Programme (SMP) and its successor, the Outright Monetary Transactions (OMT) programme.

Chapter 4 brings gold into the debate. For this purpose, the value of Europe's gold reserves is outlined. Moreover, it is explained that gold has been used as collateral already in the past. The main focus then is in Chapter 5 on an explanation how a gold-backed bond might work and how it could lower yields. Chapter 6 deals with some legal issues involved.

In Chapter 7, the move towards a gold-backing of selected euro area sovereign bonds is compared to the SMP and the OMT. Both programmes relate to a central bank using its balance sheet to lower yields of highly distressed countries where the monetary policy transmission mechanism is no longer working. Similarities and differences between the two moves are highlighted. Many benefits of using gold in this manner vis-à-vis the SMP and the OMT are derived. Chapter 8, finally, considers the likely spread of political views across the euro area Member States and institutions.

## 2. THE BREAKDOWN IN THE MONETARY POLICY TRANSMISSION MECHANISM

The sovereign debt crisis is eroding long standing assumptions around sovereign debt risk. In developed markets, the rising burden of public debt combined with low economic growth is raising concerns around the long-term ability of some euro area sovereigns to repay.

For some countries, the credit spread in their cost of debt financing has increased significantly. This is hampering the so-called monetary policy transmission mechanism. Conversely, changes in long-term sovereign bond yields feed to a certain extent into fluctuations in corporate bond yields and bank lending rates. As a reaction to losses from significant declines in sovereign bond prices, consumers tend to enhance their precautionary savings, which in turn work against the intended stimulus to private consumption from monetary policy easing (Cœuré, 2012; ECB, 2012b, pp. 7-10). What is more, sovereign bonds are these days exposed to severe haircuts and, as a consequence, their refinancing capacity has become smaller. The volume of available collateral in the shape of government bonds has become smaller which has curtailed the refinancing opportunities of commercial banks. The price corrections of sovereign debt also exerted an immediate negative effect on the assets on the banks' balance sheets and, hence, on the risks markets attach to them. This works against the refinancing necessities of commercial banks. Additionally, it has the potential to work out as a significant impediment to the provision of loans to the real sector of the economy (Cœuré, 2012; ECB, 2012b, pp. 7-10).

Although the **ECB's LTRO** facility is helping to address the current liquidity crisis for weaker banks but it **does not directly address sovereign solvency issues**. The LTRO facility allows banks to post sovereign debt as collateral to get access to cheap ECB funding. Banks in GIIPS nations had a 70 percent share, i.e. EUR 350 billion of the first EUR 500 billion LTRO. However, the risk of default remains with the banks (Belke, 2012a). Sovereign debt still remains on the balance sheet of banks. And there is a collateral top-up requirement if the bonds pledged fall in value or default.

This has prompted the ECB to introduce controversial non-conventional monetary policy tools, such as its Outright Monetary Transactions Programme (OMT) and its predecessor, the Securities Market Programme (SMP).

### 3. THE STATUS QUO: SECURITIES MARKETS PROGRAMME (SMP) AND OUTRIGHT MONETARY TRANSACTIONS (OMT) PROGRAMME

#### 3.1. Securities Market Programme (SMP)

To address the issue that sovereign debt market activity plays a significant role in monetary transmission, one of the unconventional tools that the ECB has used is the Securities Markets Programme (SMP).

The Securities Market Programme (SMP) was launched in the Governing Council on 10 May 2010. Under the programme the ECB used part of its balance sheet to purchase debt securities of malfunctioning segments of the debt markets. Despite the fact that purchases on the secondary market are not prohibited by the Treaty and the ECB Statutes (as opposed to primary purchases), they were considered by some as circumventing the prohibition to purchase in the primary market. The ECB was challenged in Germany through the Constitutional Court for having violated the Statutes. The ECB was forced to explain its actions and has gone to great lengths to highlight the link between the stability of sovereign debt markets and the smooth functioning of monetary policy. However, with respect to the public in some Northern euro area countries, especially Germany, this remains largely unsuccessful.<sup>1</sup> With the earlier resistance to the SMP unlikely to have subsided, alternatives which achieve the same outcomes without the controversy should be examined.

#### 3.2. Outright Monetary Transactions (OMT)

As announced on 2 August 2012, the Governing Council (GC) of the ECB has on 6 September 2012 made a couple of decisions on the technical features of the potential future outright transactions to be conducted by the Eurosystem in secondary government bond markets which are targeted towards stabilising a functioning monetary policy transmission and the singleness of the monetary policy.<sup>2</sup> These transactions have been labelled Outright Monetary Transactions (OMTs) and will be implemented based on a specific framework to be described below. OMTs are meant to enable the ECB *“to address severe distortions in government bond markets which originate from, in particular, unfounded fears on the part of investors of the reversibility of the euro”* (Draghi, 2012; ECB, 2012b, pp. 7ff.).

As shown above for the case of the SMP, the ECB has in the past tried several times to dampen the crisis through bond purchases and at the same time to push the countries to undertake more reforms – without success. But *“this time it’s different”* promises ECB President Draghi and points at conditionality as the main and decisive innovation of the new OMT programme.

Strict and effective **conditionality** which is attached to an appropriate European Financial Stability Facility (EFSF)/European Stability Mechanism (ESM) programme represents a necessary condition for OMTs. These programmes can be implemented as a full EFSF/ESM **macroeconomic adjustment programme** or in the form of a **precautionary programme** (the so-called Enhanced Conditions Credit Line), as far as they grant the opportunity of EFSF/ESM primary market purchases. IMF is also called upon by Draghi to take part in the monitoring of such a programme and also in the design of the country-specific conditionality. The Governing Council will adhere to OMTs to the extent that

<sup>1</sup> According to recent poll results, nearly half of Germans *“do not trust”* Mario Draghi. See: <http://www.reuters.com/article/2012/09/06/us-ecb-germany-idUSBRE8850BI20120906>.

<sup>2</sup> See ECB Press Release, 6 September 2012: [http://www.ecb.int/press/pr/date/2012/html/pr120906\\_1.en.html](http://www.ecb.int/press/pr/date/2012/html/pr120906_1.en.html).

programme conditionality is without any reservation respected as long as they appear to be legitimised from a monetary policy perspective. Conditionality thus is regarded as *necessary but not sufficient* for OMT. What is more, it will abandon these operations as soon as their targets will have been reached or when the respective government does not comply with the precautionary programme or the macroeconomic adjustment programme. In the wake of a tough assessment, the Governing Council will take a decision *“on the start, continuation and suspension of OMT in full discretion and acting in accordance with its monetary policy mandate”* (ECB, 2012b, pp. 7ff.).

In terms of **coverage**, OMTs are envisaged for **future incidences** of EFSF/ESM or precautionary programmes or full macroeconomic adjustment programmes as specified above. They come into question for euro area Member States finding themselves **currently** under a macroeconomic adjustment programme and are in a situation in which they are on their way to regain access to the sovereign bond market as well. Transactions will be targeted at government bonds of a maturity from one to three years. The ECB's focus is thus on the shorter part of the yield curve. What is more, it does **not put any a priori quantitative caps** on the size of OMTs (ECB, 2012, pp. 10f.).

In terms of **creditor treatment**, the Eurosystem imposes the same treatment for itself and private or other creditors, i.e. a “*pari passu*” arrangement, concerning bonds issued by euro area member countries and acquired by the Eurosystem through OMTs, of course in strict accordance with the terms of such sovereign bonds.<sup>3</sup> At least legally, the **ECB** thus is **not senior** in the case of country default anymore (Draghi, 2012).

The **liquidity created** through OMTs shall be **fully sterilised**, according to the ECB. With respect to transparency, there is some progress compared to the SMP. As was the case also for the latter, the aggregate bond holdings stemming from OMTs and their market values will be published with a weekly frequency. The average duration of OMT holdings, *differentiated by country* will be published on a monthly basis. The latter is necessary simply because the benefitting country is anyway already identified via the conditionality and, thus, at closer inspection is no real progress as compared to the SMP.

Following the decision of the ECB Governing Council on 6 September 2012, on Outright Monetary Transactions, the Securities Markets Programme (SMP) was therewith terminated, leaving its volume standing at EUR 200 billion. The additional base money injected into the system through the SMP is promised to be continuously sterilised, and the SMP portfolio of securities already on the balance sheets of the ECB are said to be held its maturity.<sup>4</sup>

Draghi has also announced *a change in the eligibility for central government assets*. Accordingly, the Governing Council of the ECB has come up with the decision to **suspend the adaptation of the minimum credit rating threshold** in the framework of the *“collateral eligibility requirements for the purposes of the Eurosystem's credit operations in the case of marketable debt instruments issued or guaranteed by the central government, and credit claims granted to or guaranteed by the central government, of countries that are eligible for Outright Market Operations or are under an EU-IMF programme and comply with the attached conditionality as assessed by the Governing Council”* (Draghi, 2012). The suspension comprises all outstanding and new assets which can be subsumed under the above category.<sup>5</sup>

<sup>3</sup> The ECB intends to clarify this issue in the legal act concerning OMTs.

<sup>4</sup> The ECB terminated its Covered Bond Purchase program decided upon on 7 May 2009, in June 2010, bond purchases standing at EUR 60 bn. Its termination did not cause any new market tensions. See Stark (2011).

<sup>5</sup> See ECB (2012), p. 11. The decision on the collateral eligibility of bonds issued or guaranteed by the Greek government taken by the Governing Council on 18 July 2012 is still applicable (Decision ECB/2012/14).

## 4. SECURING EUROPE'S DEBT WITH GOLD

It is by now clear that even in the fourth quarter of 2012 the euro area will stay under significant stress.<sup>6</sup> But it is not at all clear whether the ECB or the euro area governments will de facto be able to act properly to choke market fears and bring down (allegedly) overly high government borrowing costs. As unease builds, it may be time to explore new ideas to cut interest rates.

An idea would be the **gold backing of new sovereign debt**. It is common knowledge that a few countries which are the most affected by the euro crisis, i.e. Portugal and Italy, hold large stocks of gold. In aggregate, the euro area holds 10,792 tonnes of gold, that is 6.5 percent of all gold that has ever been mined, and worth some USD 590 billion (Farchy, 2011).

As expected, this scenario was the trigger for some to propose that not only the financially distressed governments should sell some of their gold (see, for instance, Prodi and Curzio, 2011). Over the last couple of years, the value of gold has soared. And a popular view is, if there were ever a suitable time that euro area Member States are in need of an unanticipated windfall gain – for instance, to pay interest on their sovereign bonds – it would be now (Farchy, 2011; Pleven, 2011).

But *"this would be a mistake. For quite apart from the fact that a massive dump of gold would dampen its price, the eurozone debt woes are now so large such that gold sales would only scratch the surface of the problem"* (Tett, 2012; see also Alcidi et al., 2010). This is because the gold holdings of the financially distressed euro area countries (Greece, Ireland, Italy, Portugal and Spain) make up only for 3.3 percent of their central governments' total outstanding debt (see Tett, 2012).

Through issuing sovereign bonds backed by gold, euro area Member States should **securitise part of that gold** instead. The latter could be enacted in a rather simple way. But one could also structure it to contain tranches of different risks. The main point in both variants is that gold would serve to provide sovereign bonds with further safeness – and thus comfort investors who do not give credence to euro area government balance sheets any more (see Tett, 2012).

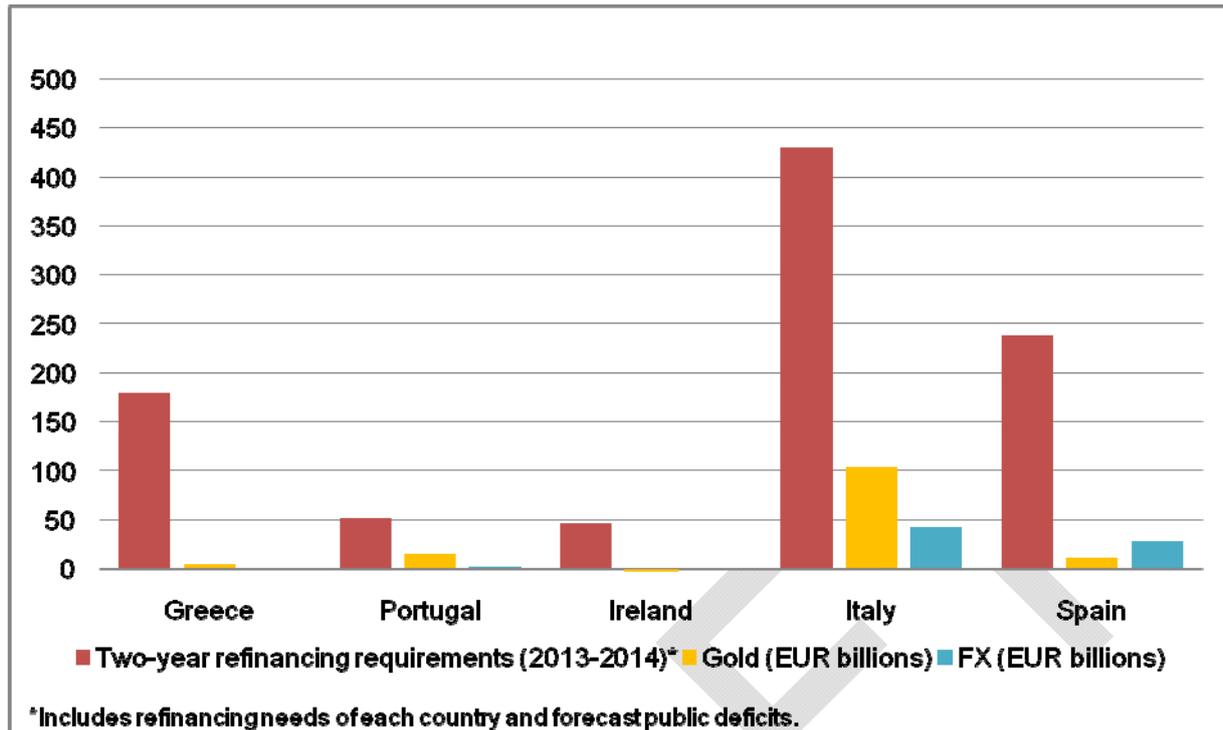
### 4.1. Materiality of gold reserves

Using gold as collateral would not work for all countries but would do so for some of those in most need. France and Germany hold significant reserves but enjoy low unsecured borrowing costs. Greece, Ireland and Spain, on the other hand, don't hold enough gold for it to be a viable solution. Italy and Portugal, however, hold gold reserves of 24 percent and 30 percent of their two-year funding requirements and could have a material impact of their debt servicing costs (Figure 1).

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<sup>6</sup> This view is supported by recent DIW analysis; see Fichtner et al. (2012).

Figure 1: Refinancing requirements and reserves



Source: Bloomberg, World Gold Council as of July 2012.

#### 4.2. Gold as collateral: historical experience

In history, collateral schemes have been utilised quite on a few occasions. In the 1970s, for instance, Italy and Portugal employed their gold reserves as collateral to loans from the Bundesbank, the Bank for International Settlements (BIS) and other institutions like the Swiss National Bank. Italy, for instance, received a USD 2 billion bail-out from the Bundesbank in 1974 and put up its gold as collateral. More recently, in 1991, India applied its gold as collateral for a loan with the Bank of Japan and others. And in 2008, Sweden's Riksbank used its gold to raise some cash and provide additional liquidity to the Scandinavian banking system (Farchy, 2011, World Gold Council, 2012).

As Paul Mercier (2009), at that time deputy director of market operations at the ECB, expressed it: *"In a generalised crisis that leads to the repudiation of foreign debts or even the international isolation of a country [...] gold remains the ultimate and global means of payment that is still accepted and it is one of the reasons used by some central banks to justify gold holdings."*

According to this statement, countries have in history headed towards their gold reserves only in their toughest situations. What is more, lenders are most probably requiring that this gold is transported to a neutral location. Gold-backed bonds could help in some respects but would not be a full and all-comprising solution. Questions arise, for instance, over the unintended impact on unsecured debt yields. There is scant evidence that the idea has received any significant support from policy makers up to now. Even if euro area political leaders accepted the idea in the end, significant legal obstacles would loom at the horizon most notably connected with the fact that a large share of the gold is held by central banks and not by treasuries (Farchy, 2011, Tett, 2012).

Only a decade ago, it appeared rather *"old-fashioned to ever suggest that any investor would claim gold as collateral; in the era of cyber finance, securities such as treasury bonds, tended to rule"* (Tett, 2012). However, over the past few months, groups like LCH.Clearnet, ICE and the Chicago Mercantile Exchange have to an increasing extent begun

"to accept gold as collateral for margin requirements for derivatives trades" (World Gold Council, 2012; Tett, 2012). In addition, in summer 2012 the Basel Committee on Banking Supervision issued a working paper in which it suggested that gold should be one of six items to be employed as collateral for margin requirements for non-centrally cleared derivatives trades, joint with assets such as treasury bonds (Basel Committee on Banking Supervision, 2012, p. 22; Tett, 2012).

Finally, Curzio (2012) acknowledges that when Romano Prodi suggested in 2007 that Italy should use its gold reserve to pay the debt, the reaction was negative. The Italian Finance Minister in 2009 wanted to tax gold and the European Central Bank opposed the idea. Curzio concludes that Italy at the moment has little resources to invest in growth and should consider asking Germany or any other Asian sovereign fund for a loan with its gold reserve as collateral. Rather, Curzio and Prodi suggest using gold reserves as collateral for a bond.<sup>7</sup>

Much in the same vein, Giuseppe Vegas, Chairman of Consob recently suggested a treasury fund with the rating of 'Triple A' collateralised by the jewels of the state namely the shares of ENI, ENEL, buildings, gold reserves and currency as an instrument to reduce the interest payment on the government debt.<sup>8</sup>

All these moves taken together suggest that a creeping change of attitudes is going on. This evolution takes place lesser in terms of the desirability of gold per se, but more through the growing riskiness and undesirability of other allegedly "safe" assets like sovereign bonds. This pattern will probably not reverse soon. This is so especially because markets long waited to see what the ECB might really do after 6 September 2012 and, after this date, whether Spain would be the first case for outright market operations a couple of weeks later in October 2012 (Rees, 2012, and Tett, 2012).

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<sup>7</sup> See: <http://www.firstonline.info/a/2012/09/11/alberto-quadrio-curzio-usare-loro-come-collaterale/4097075e-c2ac-4bd4-9567-0d6877d3a1e0>.

<sup>8</sup> See: Corriere della Sera, 26 June 2012, [http://www.corriere.it/economia/12\\_giugno\\_26/fondo-immobili-societa-quotate-bot-vegas\\_31aeeb20-bfa8-11e1-8089-c2ba404235e2.shtml](http://www.corriere.it/economia/12_giugno_26/fondo-immobili-societa-quotate-bot-vegas_31aeeb20-bfa8-11e1-8089-c2ba404235e2.shtml).

## 5. ESTIMATING THE YIELD REDUCTION OF GOLD-BACKED DEBT

Gold reserves are not typically considered in sovereign yield analysis during normal conditions (default is often triggered with reserves intact). So the chosen bond structure would need to offer *very explicit risk reduction* in order to benefit from lower risk spread. Sovereigns have historically sought to retain their gold to assist recovery, and thus often default on debt obligations rather than sell down reserves. Examples are Argentina and Russia.

It can be shown that gold backing of sovereign debt reduces the annual yield, thus supporting the monetary transmission mechanism. Clearly, the functioning of the monetary policy transmission mechanism could be improved in the short-run since the yields on government bonds - as a key reference point for other interest rates - fall significantly because of sharply falling risk premia of gold-backed bonds. In the case of Portugal, for instance, this would make up for several percentage points on 5-year bonds. The *hedge* that the gold would provide against a default as an example of an extreme event would surely attract investors such as emerging market governments and sovereign wealth funds. If a country such as Portugal or even Italy were to default, most gold price, especially if it is denominated in Euro, would sky-rocket (Baur and Lucey, 2010; Saidi and Scacciavillani, 2010, and Farchy, 2011).

To show this for Portugal, we take the following approach (see Table 1). A top-down model is developed to quantify the change in yield when sovereign debt is backed by gold. The credit risk characteristics of bonds/debt are driven by three main factors: i) the *probability of default* (PD); ii) the *expected unsecured recovery rate* in the event of default and iii) the *collateral/guarantee recovery* in the event of default. The **yield rate** is modelled as: **(risk free rate) + (risk premium)** with the **risk premium** as a proxy for the compensation for the credit risk of the asset and calculated as **PD\*(1-total recovery rate)**. Financial stress on a sovereign leads to increase in its bond yields as the severity of the crisis translates into an increase in risk free rate, an increase in the probability of default and a decrease in expected recovery rate in the event of default. In the following, we give an illustrative analysis of the issues.

**Table 1: Yield differential of gold-backed sovereign bonds: The case of Portugal**

Parameters	Stress unsecured sovereign bond	Gold backed facility Alternative 1	Gold backed facility Alternative 2
a. Gold secured portion	0%	33.33%	50%
b. Estimated annual yield	10.0% <sup>1</sup>	6.00%	5.00%
c. Risk free rate	2.00%	2.00%	2.00%
d. Risk premium $e*(1-f)$	8.00%	4.00%	3.00%
e. Annual probability of default	16% <sup>2</sup>	12% <sup>3</sup>	12% <sup>3</sup>
f. Total recovery after collateral $(1-a)*g + (a*h)$		66.7%	75.0%
g. Expected unsecured recovery	50% <sup>4</sup>	50%	50%
h. Gold collateral recovery (approx)		100%	100%

### Assumptions:

1. Standalone unsecured yield as per example from a 5-year Portugal bond
2. As per 5-year Credit Default Swap (CDS) value
3. Estimate a 25 percent PD reduction in a gold backed structure
4. Sovereign default recoveries historically 30 percent to 80 percent (depends on debt size and bargaining power) – 50 percent conservative average assumed

The logic behind the calculations runs as follows. Starting with the analysis of **unsecured debt**, we begin with the estimated annual yield of unsecured debt. In this example we are looking at a 5 or 6 year bond. We have taken as a starting point the market rate at the time of analysis which was a yield of 10 percent (assumption 1). Then we look at the **CDS rate** to **calculate an annual probability of default** (assumption 2). Next, we calculate the recovery in the event of a default. Historically this has been 30 percent to 80 percent, so we take 50 percent (assumption 4). Total recovery in the case of unsecured debt is then 50 percent. A check of the calibration of the calculations delivers the following: the total recovery equals 50 percent; the annual likelihood of default is 16 percent, therefore the risk premium amounts to 8 percent (= (100-50) times 0.16). Subtracting the calculated risk premium of 8 percent from the yield of 10 percent equals a risk-free rate of 2 per cent.

Now consider the case of **secured debt** and compare it to unsecured debt, using a similar calculation logic. Next take the Euro risk free rate, which is conservatively taken as 2 percent (looking at German 2 year yields for example). The risk of default is assumed to be 25 percent lower due to the incentive of losing gold collateral and now amounts to 12 percent (assumption 3). Assume now that total recovery in the event of default is increased due to the partial gold backing. Calculate the overall recovery rate using the assumption of 100 percent recovery of the gold element and of a 50 percent recovery of the rest in the partially collateralised structure. Calculate the risk premium by multiplying the probability of default by the loss given default (1 - recovery rate). Add the risk premium to risk-free rate to obtain the estimated annual yield.

Now consider that Table 1 has a Portuguese example bond which is 33 percent and 50 percent collateralised by gold. This obviously implies that it only collateralises part of its two-year needs. If the example should be one whereby all its bonds are collateralised, the percent collateral backing will be needed to be reduced, to something below 30 percent. If one takes exactly 30 percent, the total recovery after collateral is 0.65 (i.e.  $0.3 \times 1 + (1-0.3) \times 0.5$ ) and the risk premium amounts to 4.2 percent (i.e.  $0.35 \times 12$  percent). The estimated annual yield then is 6.2 percent.

The sovereign bond yield reductions could in principle be compared to the econometrically estimated effects of the SMP. Due to the recent character and limited time range of the SMP, empirical investigations of its effectiveness are still rare. Kilponen et al. (2012) investigate the impact of an array of different euro area rescue policies on the sovereign bond yield spreads, but only through dummy variables coded as one on the day of announcing the respective measure. Hence, they do not test for a permanent impact of SMP measures. They find a significant effect of SMP announcement. Steinkamp and Westermann (2012) make use of a SMP variable as a control variable in an estimation equation – however, with an insignificant result.

## 6. LEGAL PRACTICALITIES

It has to be recognised that there are legal and political considerations, as there were with the SMP.<sup>9</sup>

The first critical issue is **reserve ownership**. In most countries, gold reserves are held and managed by central banks rather than governments. Specifically, in the euro area, gold reserves are managed by the Eurosystem which includes all Member States' central banks and the ECB (Article 127 TFEU, and Protocol (No 4) on the Statute of the ESCBs and of the ECB, Article 12).

The second issue is **central bank independence**. National Central Banks must remain independent of governments in pursuit of their primary objective of price stability (Article 130 TFEU). The Treaty on the Functioning of the European Union (TFEU) expressly prohibits direct financing of governments by central banks (Article 123 TFEU). One should be mindful of the legal issues that this will raise and that such a suggestion will be highly controversial. It is specifically likely to raise questions as to whether or not this represents a breach of the prohibition on monetary financing.

The third issue is related to the **limited potential of gold reserve sales**. There are longstanding gold sale limits which are valid until 2014 that could potential limit collateral transfers and would need to be addressed. The Eurosystem central banks are currently signatories to the 3<sup>rd</sup> Central Bank Gold Agreement (CBGA) which restricts net sales of gold reserves to 400 tonnes p.a. combined<sup>10</sup>. A number of other major holders - including the US, Japan, Australia and the IMF - have announced at other times that they would abide by the agreement or would not sell gold in the same period. Hence, the CBGA agreement could serve as a constraint on the size of potential gold reserve transfers until 2014, as it commits signatories to collectively sell no more than 400 tonnes of gold p.a. between September 2009 – 2014. Gold collateral could be interpreted as outside the scope of the CBGA or the maturity of the bonds could be staggered in order to limit the amount of gold coming onto the market in the event of a default.

There are clearly important legal issues that need to be addressed, but then that was also the case with the ESM, SMP and OMT. European legislation may need to be amended to accommodate a gold pledge for sovereign debt. This could be done by elaborating an amendment to the Treaty which establishes pledged gold as segregated from Eurosystem central banks and other national banks.

<sup>9</sup> For this chapter see also World Gold Council:  
[http://www.gold.org/government\\_affairs/new\\_financial\\_architecture/gold\\_and\\_the\\_eurozone\\_crisis/](http://www.gold.org/government_affairs/new_financial_architecture/gold_and_the_eurozone_crisis/).

<sup>10</sup> <http://www.ecb.int/press/pr/date/2009/html/pr090807.en.html>.

## 7. GOLD-BACKED BONDS VERSUS SMP/OMT

We now analyse the SMP more deeply, raise some important caveats, check whether they also apply to the OMT and we will finally assess whether gold-backed sovereign bonds would represent a valid alternative.

Since intervention under the SMP has been confined to the secondary market, the ECB did not literally offend against the Treaty.<sup>11</sup> But it violated its spirit as bailing-out government deficits through the printing press is prohibited with an eye on the TFEU, at least according to some “Northern” euro area lawyers. The main political actors were eager about justifying their move by referring to unusually high market tensions, which regrettably left the ECB with no other way out. Although sovereign bond markets for the most indebted euro area Member States de facto *nearly dried out* in the weeks before May 2010, *markets do not turn out to be irrational* at all upon closer inspection.<sup>12</sup> With the benefit of hindsight, one feels legitimised to state that their fear to be forced to write off their loans was generally not unrealistic. According to empirical evidence gained for the period until the SMP was installed, government bond spreads reacted systematically to the anticipated fiscal policy stance of Member States during the financial crisis. This indicates that the fears of dysfunctionality were probably *overridden* (Gerlach, Schulz and Wolff 2010, and a couple of studies co-authored by Juergen von Hagen and Ludger Schuknecht). However, in his justification of the OMT release in September 2012, Draghi heavily relied on one study by the Research Department of the Banca d’Italia and on another by J.P. Morgan which state that sovereign bond yields still tend to take steady values “*not consistent with fundamentals*” in August 2011 (Mac Gorain, 2012; Di Cesare et al. 2012, p. 13).<sup>13</sup> Hence, either this is an empirical corroboration of the fact that the SMP was not successful or that the SMP was set in place without any economic legitimisation.

### 7.1. No transparency

The ECB did not release any *official information* about the *composition of the SMP bond purchases* – neither on countries involved nor on the maturities. Obviously, this was against the interests of the European Parliament which usually forcefully strives for transparency of ECB Governing Council decisions (one recent example being its interventions with respect to an early publication of the records of the ECB Governing Council meetings).<sup>14</sup> As an official reason it is often mentioned that the SMP would otherwise not become effective. But one other obvious reason is the emergence of

<sup>11</sup> It was clear from the beginning that for the ECB there would be a theoretical way out to arrive at a result similar to a *direct* purchase of sovereign bonds (see already Belke, 2010, explicitly on this option): If in the financially weak euro area Member States commercial banks come or would be put under pressure to buy sovereign bonds – and the ECB would at the same time abrogate – as already systematically executed not only in the case of Greece – all her rules for mortgaging collateral, governments could procure money through a less noticeable indirect route.

<sup>12</sup> Although all countries have announced broad-based bank rescue packages, investors have differentiated between countries mainly on the basis of other, more country-specific factors (e.g. fiscal outlook). This has also been valid after February 2010 when markets have increasingly differentiated among the weak members. In a recent paper, Heinemann, Osterloh and Kalb (2012) find that a euro area Member State’s stability culture (which may be expressed by the use of gold as collateral) is one of the most significant drivers of euro area sovereign yield spreads since it fosters the inclination to implement fiscal rules which in turn are the significant variables in ordinary regression equations estimating sovereign bond yields.

<sup>13</sup> Note that the convertibility risk was derived here *from Google-omics* by checking how often internet Google users inserted a term like “euro area breakup”. However, there would really be a credibility problem for central bank research emanating, if the finding of “dys-functionality” of sovereign bond market would become more probable the more Southern the central bank research is conducted, i.e. if Bundesbank research does not find it but Banca d’Italia does.

<sup>14</sup> Whelan (2010) introduces an insightful thought experiment and supposes that the EUR set up a programme to buy municipal bonds but would not announce how much came from California or Florida or other states or cities. He asks how long would this survive before members of Congress demanded a full explanation of the programme? But that is where we have been from May 10, 2010, up to now in the euro area.

*considerable internal unanimity* within the ECB Governing Council on this issue – decisions appeared to be slightly more controversial than the OMT decision which only received resistance from the German Governor Jens Weidmann and not from the Governors of other Northern euro area central banks any more. For instance, Jean-Claude Trichet had to admit that the ECB decision to set the SMP on track had not been taken unanimously.<sup>15</sup> In addition, these are important signs of a *re-nationalisation of monetary policy* counteracting the *principle of the singleness of European monetary policy* (for more details see Belke, 2010).

## 7.2. Elements of subsidy

*"In addition, targeted bond purchases issued by highly indebted euro area governments contain an element of subsidy which tends to severely weaken their fiscal discipline: the interest rate premium on bonds of fiscally weaker countries declines and that of stronger countries increases. Fiscally solid countries are punished and less solid ones, in turn, are rewarded for their lack of fiscal discipline and excess private and public consumption. The credit risk is thus just rolled over from the bonds of the weaker countries to those of the stronger ones and the ECB is made responsible for their liabilities"* (Belke, 2010).

This programme went along with a resource transfer if (as it seems in some cases) the ECB has paid higher prices than those corresponding to the true default risk. This came to the benefit of the immediate sellers of these bonds. Especially French banks managed to pass their stocks of Greek bonds to the ECB with – if at all – little loss to the ECB. In addition, also those investors have profited from the transitory stabilisation of bond prices through the SMP which had acquired the bonds of financially stressed sovereigns from suppliers which had to sell those due to a downgrading of their rating for regulatory reasons.

*"Already by the mere fact of bond purchases, the ECB acts like a fiscal agent by taxing other euro area creditors through higher bond rates in order to support a government which finds itself in a financial emergency situation. This is valid again when the ECB collects the money which was already spent for bond purchases. Other euro area creditors are put into a disadvantage because the ECB must offer higher interest rates in order to receive the money back which in turn makes credit more expensive"* (Belke, 2010).

## 7.3. Financial dependence of the ECB and the ESCB

In one of my 2010 Briefing Papers in the framework of the Monetary Dialogue, I argued with respect to the SMP and now applicable to the OMTs as well that *"surprisingly less focus has been put on the at least as equally important aspect of the slowly vanishing financial independence of the ECB. Who will actually have to pay the losses of the purchased private and sovereign bonds, if Greece and Portugal - to begin with - will not be able to serve their debt in the end? Ultimately, the owners of the ECB would be asked to pay up, while by far the largest part will be imposed on Germany. It cannot be excluded that the toxic bonds in the balance sheets of the ECB might eat up most of the reserves and its equity capital if they were to fall in value by a sufficiently large amount – in the worst case, the amount could make up for up to three digit billion euros. In this case, less central bank profits are transferred to the account of the euro area governments – with a given public deficit and level of spending - taxes and duties will inevitably go up."* (Belke 2010). It cannot even be excluded that losses will exceed the whole equity capital of the ESCB. In this case, the euro area governments will have to ramp up the ECB's equity capital with the purpose to either bolster the ECB's reserves or to avoid a negative equity capital of the central bank.

<sup>15</sup> See: [http://www.ecb.europa.eu/press/key/date/2010/html/sp100531\\_1.en.html](http://www.ecb.europa.eu/press/key/date/2010/html/sp100531_1.en.html).

## 7.4. Sterilising ECB bond purchases: Unknown terrain

The ECB had decreed to *sterilise its sovereign bond purchases* within the SMP and announced the same for the new OMT programme - neutralising bond purchases via sales of other bonds or money market instruments from its own balance sheet to leave the overall monetary base unaffected. The ECB's main aim has been to counter accusations that the bank is monetising national government debt (for details see Belke, 2010).

Technically, sterilisation could be put into place by means of a tender of *interest-bearing time deposits*. However, making this option attractive for depositors might necessitate an increase in interest rates which in turn may limit the degrees of freedom in setting main refinancing rates. Another option addressed by the ECB itself would consist of issuing *own ECB debt certificates*.<sup>16</sup>

When implementing implicit **minimum price guarantees for government bonds**, the ECB does not know exactly how many bonds it would have to acquire to sustainably stabilise the prices of the financially distressed countries' bonds. To keep out of harm's way, the ECB probably tends to *purchase more than necessary*, which would *blow up the stock of base money* more than necessary. Additionally, the credibility of future sterilisation measures always suffers from the character of being *"merely promised"*. The tenders of a time deposit can be taken just as an indication that the ECB wanted *"to put out a few feelers 'to see how it will work'; in fact they are not mandatory"* (Belke, 2010).

And all sterilisation efforts combined with any new programme such as the ESM or the OMT convey the impression to be *irrelevant*, given the background of the overall ECB monetary policy stance: still *offering loans to an unlimited degree* through its refinancing programmes. Moreover, the **OMT bears** – as described below – further **characteristics** beyond the SMP **which render it** even more *"unlimited"*. Finally, global excess liquidity is already vagabonding around the globe but did not unravel due to still small money multipliers. It also is an important determinant of the money supply not tackled by sterilisation (Belke, 2010, and Belke and Gros, 2010, cited by Saidi and Scacciavillani, 2010).

What is more, the issuance of own ECB debt certificates would make bonds of sovereigns under financial stress even less marketable (Belke, 2010).

## 7.5. Shifting toxic debt instruments on board of the ECB

The ECB is faced with a significant credit risk because it lends to financially stressed banks which are not able to receive loans elsewhere and at the same time steadily lowers its quality requirements on collateral and accepts *"toxic"* government bonds in the framework of its bond purchases (for details see Belke, 2010; Belke, 2012b; and Gros, 2012). Equally important, the quality of the collateral transferred to the ECB is determined in a nation-specific way – in the context of the ECB lending to Greek banks it is made up by doubtful private Greek assets and Greek sovereign debt. Conflicts among Member States cannot be excluded because the ECB acts as a *"central counterparty for cross-border lending incurring risks along national lines"* (Gros, 2011).

<sup>16</sup> See, for instance, the proposal by (at that time) ECB Board member Bini Smaghi. Belke (2009) delivers a detailed assessment of the pros and cons of this proposal.

## 7.6. Attracting investors: Only temporary effects

The fact that risk premia were increasing again in Southern European sovereign bond markets already in the wake of the SMP clearly indicated that the rating of *the euro area by large investors has not changed substantially since the adoption of the rescue packages* and the announcement of strict austerity programmes in Greece, Spain, Italy and Portugal (Di Cesare et al., 2012; and Mac Gorain, 2012).<sup>17</sup> But the same assessment appears to be also valid with respect to the success of the announced OMTs (as anticipated by Belke, 2012e). Only some weeks after the announcement of the OMTs, Spanish yields started to sky-rocket again.

It is thus of paramount importance that investors must be put into a position to be capable of assessing the euro area Member States individually according to their country risk and not as a member of a homogenous block (*“standalone ratings”*). The main escalating problem is *that the ECB is curbing real returns of sovereign bonds through its bond purchases* to realisations which are certainly *not sufficient to attract private investors*. This in turn raises doubts about sustainability of the bond purchasing solution.

## 7.7. “Sterilising” monetary policy: Targeting the asset side of the ECB’s balance sheet

*“The problem inherent in both sterilisation approaches is that they reshuffle only the liability side of the ECB’s balance sheet. Both approaches are arguably not well-suited to either diminish the bloated ECB balance sheet or to remove the (potentially) toxic covered bonds or sovereign bonds”* (Belke, 2010).

Hence, further purchases of sovereign bonds under the OMT following the now terminated SMP are not a sustainable solution at all. This instrument is limited in time and volume. Unlimited extension of the balance sheet does not appear manageable especially as the equity capital of the ECB is already leveraged by a higher double-digit number.<sup>18</sup>

In addition, *“the intake of potentially toxic assets as collateral and by outright purchases in the central bank balance sheet artificially keeps the asset prices up. A credible strategy of sterilisation to deal with the consequences of the financial crisis should, thus, deal primarily with the asset side of the ECB balance sheet”* (Belke, 2010).

## 7.8. Danger of inflation

The absence of a fiscal *“back-up”* might be an incentive for a central bank to head for seigniorage revenue through inflation. It follows that there is a manifest risk of higher than targeted inflation. Accordingly, Sims (2003) and others have demonstrated *“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 stabilisation efforts”* (Belke and Polleit, 2010).<sup>19</sup>

A central bank incurs inflation dangers by printing additional money intended to avoid sovereign bankruptcy. The inherent problem combined with this *“solution”* is that the

<sup>17</sup> For instance, the saving requirements are so drastic that their successful implementation seems to be almost impossible and politically risky for Greece, Portugal and Spain.

<sup>18</sup> See <http://www.spiegel.de/wirtschaft/soziales/scheidender-chefvolkswirt-stark-waehrungshueter-distanziert-sich-von-ezb-kurs-a-804391.html>.

<sup>19</sup> For empirical correlations of financial stress and policy performance of central banks, in particular with regard to inflation, see Klüh and Stella (2008). They find that a negative relationship between central bank financial strength and inflation outcomes. It turns out to be robust to the choice of alternative country samples, control variables, estimation strategies, and conceptualisations of central bank financial strength.

citizens have ultimately to pay for the risks originally taken by the central bank itself (Belke, 2010). This is a topic often brushed under the carpet but has increasingly been taken up by the Bank for International Settlements (see also White, 2012) and even most recently by the new leaders of Deutsche Bank.<sup>20</sup> And they are not alone.

The problem is on the one hand technical – there is no historical example of such a huge amount of liquidity to be sterilised after the SMP and the LTROs in the euro area (not to speak of global liquidity). On the other hand, it is system-inherent. As stressed so often by Austrian School economists such as Hayek, to stop inflation is less a technical but in the end more of a political problem (Belke and Polleit, 2009). From this perspective, the ECB may well be endowed with all the instruments to re-collect all the base money put into circulation by its bond purchases but will it really implement them in the necessary strictness in the end even if inflation proves to be the easiest way for politicians to get rid of sovereign debt. According to history, inflationary expectations are not based in first instance on central banker's statements of good intent (White, 2012). Hence, there is also the undeniable risk that the extension of the ECB's balance sheet will finally fuel inflation *in the medium run* – at least in the North of the euro area as part of the solution of the present balance-of-payment crisis (Belke, 2012c).

Indeed, there was significant growth of the monetary base over the recent period – in itself signalling inflation potential for the future (see Belke and Polleit, 2010, for the so-called p-star model). But this cannot be established for M3 (Commerzbank, 2012, and BIS, 2011). Whether *inflation potential* is contained in the SMP and the OMT combined with the LTROs will be dependent on whether the ECB will be able to re-collect all the money in the banking sector before the start of an economic recovery and, thus, a more dynamic loan and M3 development in the euro area. There is a huge amount of money *"in the pipeline"* alone with an eye on the LTROs (Belke, 2012a, and Belke and Polleit, 2010).

Even more important, the ECB is *caught in the current situation and de facto taken hostage by its strategy* (for an analogous argument with respect to the Fed see White, 2012). In order to avoid negative consequences of the preceding covered bond and SMP programmes and also the LTROs it comes up with a new even bigger and more far-reaching programme - the OMT. It has thus moved into a (too) close symbiosis with politics. Even Bundesbankers like Jens Weidmann or Joachim Nagel re-iterate that unconventional monetary policies will remain activated until the euro area crisis will be resolved in the end which might take quite a long time. *"The ECB is probably not able any more to completely refuse the politicians', US portfolio managers' and rating agencies' strive for inflating away public debt"* (Belke, 2011a). As soon as market participants will *anticipate* this constellation (note that anticipation is sufficient for this to happen), inflation expectations will rise immediately and which will be reflected in market pricing.

## 7.9. ECB bond purchases: Efficiency and path-dependence

*"It did not come as a surprise that the bond purchases by the ECB under the SMP turned out to be effective on the markets only on the first days. Only a little bit later, around one week after the announcement of the SMP in May 2010, for instance, the euro plummeted to a four-year low. Also other indicators of the degree of uncertainty traded at the markets convey the impression that investors do not believe in the sustainability of the "newly designed" euro area any more – the latter being characterised by a daunting institutional failure to make sovereign default in EMU possible. Instead, markets assume that "toxic" government bonds would finally be located on the ECB balance sheet, threatening the long-*

<sup>20</sup> See <http://www.welt.de/wirtschaft/article109240424/Deutsche-Bank-haelt-hohe-Inflation-fuer-unvermeidlich.html>.

*term stability of the euro. As a result, the European currency fell against most other currencies" (Belke, 2010).*

Consider the realistic case that the ECB will *hold the bonds to maturity* (as indicated by Draghi, 2012). Then the ECB will effectively tax the private sector if it strives to diminish its balance sheet (if it does not, it risks inflation). It will in turn have to sell sound non-sovereign bonds which will be lowering their prices and drive up the premia corporations will have to offer then to pay for their bonds.

The danger has risen by launching SMPs and OMTs that the ECB will get caught up in its role of a lender of last resort and a central counter-party of euro area risks (White, 2012). *"The more bonds the ECB will buy, the more difficult it will be to deny further sovereign financing in the future because doubts on the markets will prevail until an institutional solution of debt restructuring will be installed in the shape of a fiscal agent to be financed by the governments themselves and not through the creation of money" (Belke, 2010).*

Overall, the *"most worrisome aspect is that the euro area has stumbled into a perpetuation of unconventional monetary policies by the execution of the SMP"* (Belke, 2010) and will do even more so by activating the OMT programme. Of course, an at least as important purpose of these measures is to bail out banks and governments to support their bond issuance, although external communication and justification is heavily focused on the necessary repair of the monetary transmission mechanism. *"What is difficult to see at the moment is how, once started, it can stop"* (Belke, 2010).

### **7.10. Lowering the degree of reform: The "There-Is-No-Alternative" view**

A credible implementation of necessary structural reforms promotes lower funding costs of governments and economic growth. This was recently demonstrated through the examples of Italy and Spain. Their bond yields shot immediately back up, when Italy after a sweeping pension reform did not as ambitiously push through labour market reforms, and as soon as Spain – faced with domestic political resistance – came up with increasingly less ambitious deficit-reduction plans. This pattern of reform intensity was motivated apparently by the massive support of two *"Big Berthas"*, i.e. Long-Term Refinancing Operations, and the anticipation of resumed government bond purchases by the ECB which finally materialised as OMTs.

The negative employment effects on highly centralised and inflexible wage bargaining systems (Italy and Spain) and/or irresponsibly slow deleveraging of the housing bubble by too high construction investment figures (Spain) are simply shifted by an accommodating monetary policy through sovereign bond purchases onto third parties. But the costs of structural rigidities would only become visible in case of a credible announcement of the exit from the ultra-expansionary monetary policy. More important and more democratic: The scope for rent-seeking interest groups - as in the Spanish case the regional bankers and real estate agents - would be diminished and the pressure for action for governments would become much greater. The empirically corroborated TINA ("There-Is-No-Alternative") effect would develop its welfare-enhancing effect, given the still insufficiently mobile population in the South of the euro area, and would increase the market-based adaptability to shocks (Belke, Herz and Vogel, 2006). This would be deeply democratic, because a passing of reform failure onto third parties like the employed in the North could be prevented. Collateral damage to healthy parts of the euro area economy, such as diminishing returns on investments in sound companies and banks would be avoided.

With the ECB's transition to the OMTs on 6 September 2012, things have changed slightly. This time and different from the SMP, the ECB tries to take into account the fear of reform fatigue in the crisis countries. On the one hand, ECB assistance shall be provided only to

countries that accept the conditions of the bailout fund ESM. On the other hand, the ECB announced that it will only buy bonds with a maturity of less than three years. The rationale behind this is that the affected countries should know that will have to turn back on the markets rather soon. This is intended to keep the reform pressure up.

### 7.11. SMP and OMT critique: A summary

Our above analysis has demonstrated that without a mechanism to manage an orderly sovereign default adjustment programmes lack credibility and the ECB balance sheet is exposed to significant risk. *Only sovereign funds*, including gold-backed sovereign bonds, disclose the genuine opportunity costs to the initiators. But choosing the money printing press, the opportunity costs of the appropriate adjustment programmes wrongly appear to approach zero.<sup>21</sup> This is especially so because the ECB programmes are *not sufficiently transparent*.

As an alternative to the first best solution of a European Monetary Fund<sup>22</sup>, the ECB could have supported sovereign debt consolidation by *solely accepting* (of course, after a transition period) *bonds* issued by those governments which have introduced *upper limits to debt levels* as collateral.<sup>23</sup> This proposal à la Martin Feldstein has been called by Belke (2010) a highly appreciated departure from the ECB's current practice to assist banks by accepting toxic assets as collateral and to purchase Southern euro area sovereign bonds. In the same vein, one could argue in favour of a gold-backing of sovereign bonds because the potential loss of gold serves as a disciplining device for fiscal policy behaviour of the respective government.

### 7.12. Beyond SMP: Some OMT specifics

*Many of the caveats raised above with respect to the SMP also apply to the OMT. But the OMT is even more critical* and shifts the problem into a new dimension – due to a couple of reasons. The recent ECB Council meeting on 6 September 2012, has dealt – according to its own wording - with nothing less than a plan for the rescue of the euro area. The core issue is how the ECB can prevent, by means of a renewal of its securities market programme (sovereign bond purchases), that Spain's and Italy's financial power is choked by extremely high risk premia. One of the probabilities would be a combined action of the EFSF and the ECB which would have the advantage that conditionality could be imposed on the receiver countries. The EFSF would buy limited amounts of sovereign bonds and at the same time the ECB announces unlimited purchases. Controversial issues are, for instance, an interest rate level or spread (vis-à-vis German bunds) threshold for interventions, and the publication or secrecy of such a threshold if it is pursued (as a representative source White, 2012, p. 7).

One of the huge difficulties however hailed as an advantage compared to the SMP by Draghi, implied by this OMT scheme is that the ECB would in this case *make dependent its decisions from political decisions* made by the board of the rescue funds. This is of course working against its political independence. What is more: how will the ECB react if a

<sup>21</sup> This opportunity cost argument is also a counter-argument against those arguing that the ECB does not risk to suffer in financial terms from holding sovereign bonds because the ECB could agree to get repaid far in the future, say in twenty years or so, if the respective country really goes bankrupt.

<sup>22</sup> The idea of a European Monetary Fund (EMF) was provided by Gros and Mayer (2010). They proposed funding the EMF out of levies on countries that breached EU fiscal rules, thus pushing the incentive to comply, and from borrowing in the markets. If an EMF had been launched with the start of the euro, it would have accumulated enough money to rescue a small- to-medium-sized euro area member. In a crisis, a Member State could call on funds up to the amount it had paid in, providing its fiscal policies were approved by other euro area governments. Financial support beyond that amount would entail a supervised "*adjustment programme*".

<sup>23</sup> That the country could effectively be cut off from the euro area's money market when its government debt is no longer eligible as collateral for the ECB's repo operations again demonstrates the strong enforcement mechanisms the EU disposes of (probably in contrast to the IMF). See Gros and Mayer (2010).

country breaks its reform promises? Will the ECB then really be able and willing to stop its supporting bond purchases immediately and risk disorderly default of the respective country with dangers for the functioning of the euro area monetary transmission mechanism which it claims to repair through its (announced) sovereign bond purchases? In fact, Mario Draghi clearly stated that the ECB *"would pull the plug on any country that reneged on reform or fiscal consolidation pledges – even though such a course of action could theoretically trigger market panic and an exit from the euro"* (Financial Times, 2012). The Bundesbank, for instance, is still sceptical since it sees these measures as violating the EU Treaty, i.e. the prohibition of monetary financing of public debt (Die Welt, 2012).

There is quite much uncertainty remaining about the operation of the OMTs. As anticipated, the ECB does intentionally not publish the sovereign bond yields that it considers as an upward threshold and triggers for its intervention. Some progress is however foreseen with respect to the (monthly) publication of the countries whose bonds the ECB purchases.

Mario Draghi's self-vindication for getting the ECB into a programme that blends monetary policy with fiscal policy is – as described in detail in Chapter 2 - that both the transmission mechanism, based on which the ECB aims to guide interest rates across the euro area through its main refinancing rate, and the *"singleness"* of European monetary policy have collapsed since financial markets are just pricing in the so-called convertibility risks for euro area Member States that may quit the euro (Di Cesare et al., 2012; Mac Gorain, 2012). This exclusive monetary policy legitimation is, as stated above, *logically at odds with the tight conditions* requested by the ECB before it starts its OMTs.

Mario Draghi took up this criticism stating that there was *"a case for central bank intervention in countries that had found themselves in "a bad equilibrium in which you may have self-fulfilling expectations that feed on themselves"*. Draghi continued: *"But we must remember why these countries found themselves in a bad equilibrium to start with – this is because of policy mistakes"* (Financial Times, 2012). The idea behind this is that the larger the firepower of the fund the lower the bond yields of the countries under distress and the lower the probability of default of a government due to lower interest at costs. But this kind of argument neglects that there is political uncertainty in between two points in time, for instance induced by election dates and different inclinations of different political regimes to declare a default. So there is no unique interest rate threshold which triggers ECB intervention (Gros, 2012a).

As said, a necessary condition for Outright Monetary Transactions is *"strict and effective conditionality attached to an appropriate European Financial Stability Facility/European Stability Mechanism (EFSF/ESM) programme"*. Such programmes can take the form of a full adjustment programme *or, as a less strict variant, a precautionary programme* (the so-called Enhanced Conditions Credit Line). It appears most probable that the ECB will orient itself at the latter because otherwise the respective country loses capital market access. However, this not at all intended for Spain and Italy (Rees, 2012; Rühkamp and Mussler, 2012).

After all experience, the ECB will act applying *"enhanced conditions"* as minimum requirements under this credit line (ECB, 2012), i.e. the respective country has to stick to the rules of the deficit procedure and should have a *"sustainable"* debt level. Moreover, it has to obey to the thresholds of the EU procedure with macroeconomic imbalances and should be characterised by a *"sustainable"* trade balance. Consequently, the ECB has rather *much leeway in defining the conditions* and also in assessing their degree of fulfilment. Since the ECB has the right to go beyond these minimum requirements, there is *ample*

room for conflicts between the ECB and the respective country.<sup>24</sup> This might well develop into an "open flank" for the ECB since it can react on a violation of the conditions by a specific country solely by stopping its intervention on the respective sovereign bond market. However, this would immediately drive the country's risk premia and interest rates up (Ruhkamp and Mussler, 2012).<sup>25</sup>

### 7.13. Disappointing results from bond purchasing programmes: A case for gold-backing

The dependence of Italian, Spanish and French commercial banks on financing through the ECB is now significantly higher than usual. The bigger this share gets, the more demanding it will be for Southern euro area banks to tap other ways of financing, especially with an eye on the fact that the ECB enjoys a de facto preferred creditor status<sup>26</sup>. Finally, emancipate the banks from ECB funding may turn out to be more and more complicated. As in July 2012 alone, deposits of approximately EUR 75 billion subsided from Spain and partly landed in Germany (where the money supply is by now increasing more strongly). It is clear that we have to deal with a huge dimension of capital flight from the South which is funded by the ECB money printing press (Belke, 2012e).

Against this background, it is clear that the bazookas and even ECB government bond purchases cannot be expected to reduce the borrowing cost of governments in a systematic fashion - rather the opposite. If anything, they put downward pressure on the euro and favour the euro area core and exporting country, Germany. This adds to the steadily increasing lack of structural convergence in the euro area. Persistently high bond yields lead to a divergence and fragmentation of the euro area Member States. By the continuation of its policy to flood the economy with money the ECB risks that any specific monetary policy measure will no longer have a uniform effect on all euro area economies. If the impression among outside investors grows that the current stance of monetary policy is easing the pressure for reform in the problem countries too greatly and the euro area fragments slowly thereby, their departure from the euro area as a whole will be at risk (Belke, 2012d).

Sooner rather than later secondary market purchases of the EFSF / ESM might be deemed necessary, in order to substitute foreign investors (which currently flee abroad for structural reasons) in Spanish government debt securities almost at any price.

Accordingly, it might turn out after some weeks that the complementary ECB measures announced on 6 September 2012 will not deliver a permanent reduction in bond yields in the South. Then, at the latest, *one should look for a "last resort" solution*, since the supply of alternative options looks to be exhausted because all austerity and growth programmes do not meet the expectations. Additionally, international support from the IMF, the EFSF and other institutions usually granted to troubled economies and preferred over gold-backed issuance is stretched as a result of other bailouts (Bundesbank, 2012).

One obvious *alternative* would be to go for *gold-backed sovereign debt*. Despite all current denials, the point in time may have come to foresee the use of valuable and fungible assets such as gold to provide the Southern countries with temporary, but crucial in the current crisis of confidence, bridge-financing heading towards a complete long-term solution. To be

<sup>24</sup> Accordingly, the Financial Times (2012) cites Simon Tilford, chief economist at the Centre for European Reform, as follows: "One question is whether the benefits from the bond buying are going to be enough to offset the damage inflicted by the conditionality attached".

<sup>25</sup> Even investors in sovereign bonds with a maturity of up to 3 years of distressed countries will get cold feet then, because they have bought these bonds expecting that they would be able to resell them later on to the ECB. Hence increases in longer maturity bond yields might well drive shorter maturity yields upward if there is any doubt in the reform willingness of the distressed governments.

<sup>26</sup> The problem of its preferred creditor status is however addressed by the ECB in the OMT programme.

explicit, such a proposal does not address the gold-backing of euro or stability bonds whose usefulness is conceded by the EU Commission only in the very long perspective.<sup>27</sup> Nor it is directly related to the recent debt redemption funds proposal by the German Council of Economic Advisors according to which the EFSF and later also the ESM firepower should ultimately be increased by a gold coverage of bonds.<sup>28</sup>

As mentioned before, Gold has been already used in the 1970s by Portugal and Italy to raise loans from the Bundesbank and the Bank for International Settlements (BIS). More recently, India managed to take a gold-backed loan from Japan (see Section 4.2). Gold prices tend to move counter-cyclically, which is likely to reinforce its stabilising effect in the current situation of financial stress. We do explicitly not propose to simply raise revenue from any short-term selling of the gold reserves.<sup>29</sup> That would only drive down the price of gold (Alcidi et al., 2010; Plevin, 2011; World Gold Council, 2012). We now compare the move to gold-backed bonds to the ECB's SMP and OMT programme according to which the central bank uses its balance sheet to lower yields of highly distressed countries where the monetary policy transmission mechanism is no longer working. We also outline similarities between the two moves.

#### 7.14. Comparison of gold-backed bonds with the bond purchasing programmes

Gold-backed bonds/using Gold as collateral is consistent with the logic used for SMP and OMT and achieves similar outcomes. It is available to the ESCB on its balance sheet and is under the independent control of the Governing Council. It would significantly lower yields in malfunctioning markets, thus re-opening the monetary transmission mechanism.

But it is superior to the SMP and OMT with respect to a couple of criteria. Admittedly, it could be argued that the transfer of gold reserves to say a debt issuing agency which in turn will serve investors would be in breach of the prohibition of monetary financing of government debt. Although gold is not directly sold to euro area governments and, hence, cannot without further ado be viewed as a fiscal transfer between the central bank and the government, this is indeed legally debatable. However, it would clearly be preferable to a revival of the ECB bond-buying programme SMP in the shape of the OMT, which shares the same inherent flaw.

Making use of the National Central Banks gold reserves is much more transparent, being an *important argument* vis-à-vis the euro area population and *also the European Parliament which traditionally lays much emphasis on transparency of EU governance*. It does not lead to unmanageable and disincentivising fiscal transfers from the North to the South. Hence, gold-backed bonds do not imply any transfer of credit risk between high risk/low risk countries. Potential losses are borne by specific countries and not by the largest shareholder of ECB and main guarantor of the rescue funds. This in turn reduces the

<sup>27</sup> The European Commission (2011), p. 9, proposes in its Green Paper "on the feasibility of introducing Stability Bonds that "[...] *Stability Bonds could be partially collateralised (e.g. using cash, gold, shares of public companies etc.)*". See also Farchy (2011). Prodi and Curzio (2011) argue that further innovation is necessary with a European Financial Fund (EFF) that issues Euro Union Bonds (EuBs). According to their proposal, euro area Member States confer capital to the EFF proportionally to their stakes in the ECB. The capital should be constituted by gold reserves of the European System of Central Banks. Gold could be placed as collateral.

<sup>28</sup> German Council of Economic Advisors (2011), p. 79: "*To this end, each country participating must guarantee 20 percent of its loan by pledging currency reserves (gold or foreign exchange holdings)*". The Telegraph mentions in this context that Southern Europe's debtor states must pledge their gold reserves and national treasure as collateral under a EUR 2.3 trillion stabilisation plan gaining momentum in Germany. See <http://www.telegraph.co.uk/finance/financialcrisis/9298180/Europes-debtors-must-pawn-their-gold-for-Eurobond-Redemption.html>.

<sup>29</sup> The gleaming bars in the vaults of the Greek central bank are worth USD 5.8 billion. If Athens were to sell that gold, the Greek state would theoretically be able to meet at least part of the debt payments due soon without any outside help. See <http://www.time.com/time/world/article/0,8599,2080813,00.html#ixzz27U4AE3Uw>.

probability of a downgrading of Germany and its final step-out from the funds and, thus, makes the EFSF/ESM firewall more sustainable.

Additionally, the implementation of gold-backed bonds does not shift toxic debt instruments on board the ECB as is the case with respect to the OMTs for which the Governing Council of the ECB has decided on 6 September 2012, to suspend the application of the minimum credit rating threshold for central government assets as collateral. On the contrary, gold serves as high-value collateral.

Nor does it lead to sterilisation problems and growing problems of exiting unconventional monetary policy which made the SMP path-dependent and nearly irreversible in the short-to medium run which contradicts any bridge-financing character. Simply speaking, a gold-based solution would be less inflation-prone. Those arguing that the gold-backing solution would decouple the money supply and hard currency potentially leading to hyperinflation neglect the current non-role of gold for backing a currency. But above all, the use of gold as collateral avoids or lessens in importance, the reduction of incentives for reform of the beneficiary countries under the SMP and the OMT. The reason is that a lack of fiscal discipline or reform effort of an euro area Member State puts its gold reserves at risk and gold thus delivers the best incentive structure. What is more, gold-backing of bonds strictly follows the above mentioned principle that only sovereign funds tend to reveal the true opportunity costs to the initiators.

Remember that we argued that the ESCB can *attach conditions to its gold transfer* such as the implementation of structural reforms. The move would not only fix the monetary policy transmission mechanism but also provide the time to implement the necessary reforms.

The main message boils down to the following. First, a gold-backed bond could be justified in the same manner as the SMP and the OMT programmes. Second, a gold-backed bond would not have the intrinsic disadvantage of the SMP and/or the OMT: there is no immediate fiscal transfer, no risk of an inflation tax and it should increase incentives for structural reform and not reduce those.

## 8. HOW TO BRING UP A CONSENSUS IN FAVOUR OF THE GOLD-BACKED SOVEREIGN DEBT SOLUTION?

Is the gold variant as a solution politically enforceable at all? As noted above, sovereigns should only consider gold-backed debt in specific and distressed circumstances. Hence, the need for refinancing within the euro area must be overwhelming in order to receive political support from the South for gold-backing. Clearly, financing costs must have become unsustainable as a requirement for public support of a gold-backing of sovereign bonds: a high inflation perspective limits the ability to perform quantitative easing, that unsustainable sovereign yields are offered by the public markets and the debt/ GDP ratio is untenable (Belke, 2012e).

The arguments against the use of gold for the backing of financially stressed bonds are raised by central bankers and economists especially from Italy such as Banco d'Italia Governor Visco— a country abundantly equipped with gold reserves – who themselves have supported a revival of the SMP, now in the form of the OMT (Visco, 2012).<sup>30</sup> However, as demonstrated in detail above, both variants of unconventional monetary policy collide significantly more with the EU Treaty and the ECB Statute.

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<sup>30</sup> Note that the proposal by Prodi and Curzio (2011) is closest to the one presented in this note. However, theirs is symmetric in the sense that gold reserves of all euro area countries are to be pledged. See also Curzio (2012).

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