The eurozone crisis: action taken by the European Central Bank (ECB)

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In addition to conventional monetary policy (namely, the setting of interest rates), the ECB has undertaken a number of 'unconventional' measures in response to the financial crisis and subsequent eurozone debt crisis. This note discusses the purpose of some of these measures and the political controversy they have generated.

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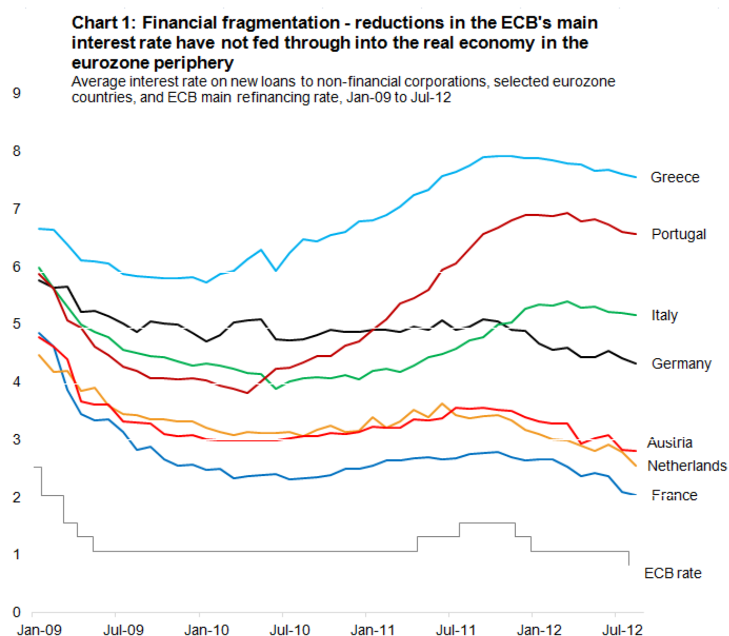
1 Introduction – the ECB's actions in context

In addition to conventional monetary policy (namely, the setting of interest rates), the ECB has undertaken a number of special measures in response to the financial crisis and subsequent eurozone debt crisis. Though they may appear complex and unconnected, these operations are united by the objective of stabilising interbank lending conditions, averting a credit crunch, and restoring the mechanism whereby changes in the ECB's main interest rate feed through into other interbank and retail lending rates, thereby affecting the wider economy. This mechanism, which had arguably never fully recovered from the 2008-09 financial crisis, broke down as the eurozone sovereign debt crisis unfolded, and banks became increasingly risk averse and unwilling to lend to each other.

The problem, which was exacerbated by the expiry of government guarantees of financial sector debt made in the aftermath of the 2008-09 financial crisis, meant that cuts in the ECB's interest rate did not lower the cost of interbank lending and borrowing, and banks, particularly those in the eurozone peripher, struggled to secure access to funding to finance their day-to-day operations. Longer-term funding became particularly difficult to access, and the ECB has attempted to fill this gap through its **longer-term refinancing operations**, enabling banks to access loans of up to three years against suitable collateral.

Increasingly, the ECB has acted as lender of last resort to banks unable to access funds on the open market, particularly in peripheral crisis-stricken countries. It has **lowered its collateral standards** so that banks are still able to pledge peripheral sovereign debt as collateral in return for ECB lending, even as it was downgraded by ratings agencies. National central banks of the eurosystem have also provided similar lending facilities, known as **Emergency Liquidity Assistance**, often against still lower-quality collateral.

The most controversial measures taken by the ECB have involved it buying-up certain countries' government debt from investors through two programmes, the **Securities Markets Programme**, and its 'successor', **Outright Monetary Transactions**. Like other measures, these have been justified as a means to restore the 'monetary transmission mechanism', and in particular the fragmentation of eurozone financial markets, whereby the ECB's monetary stimulus measures help ease financing conditions in the eurozone 'core', but have no significant effects in the debt-stricken periphery.



Source: Eurostat database

But as well as improving monetary transmission, such bond-buying can also avert sovereign debt crises by preventing government borrowing costs from rising to prohibitively high levels, though the ECB has been unwilling to concede that this might be a motivating factor for such activity. Recently, however, the ECB's President Mario Draghi has acknowledged that bond-buying (under the Outright Monetary Transactions programme) should be used to address the risk premium priced into certain countries' sovereign debt, arising from 'ill-founded' fears

that they may leave the euro and their debt redenominated into a weaker currency. Some have questioned whether it is possible to distinguish such 'convertibility' risk from ordinary credit risk premiums arising from over-indebtedness and a weak economic outlook.

The ECB is often touted as the institution with the 'silver bullet' necessary to tackle the euro crisis. This is because, as the sole issuer of euro, it can credibly commit to lend in unlimited quantities to governments and the financial system, thereby defusing speculation about sovereign solvency. However, it is constrained both politically and legally in the extent to which it can undertake such 'unconventional' monetary policy measures. Some see the bond-buying programmes as 'quasi-fiscal' operations, in violation of the ECB's mandate, that allow peripheral eurozone countries to delay the fiscal and structural reform necessary to resolve the crisis in the long-run. Similarly, the longer-term refinancing operations (in conjunction with lower collateral standards), by providing unlimited funding on such easy terms, have been criticised for discouraging banks from taking action to restructure their balance sheets and strengthen their capital base.

As well as this potential for 'moral hazard', orthodox monetarists, particularly in the Bundesbank, worry about the inflationary consequences of the ECB's actions, arguing that the liquidity provided to banks through LTROs might stoke credit and asset price bubbles, while the government bond-buying is equivalent to financing governments through the 'printing press': in this context, Jens Weidmann, the head of the Bundesbank, has warned of the dangers of the "potentially dangerous correlation of paper money creation, state financing and inflation". Unlike the quantitative easing undertaken by the US Federal Reserve and the Bank of England, none of the ECB's actions technically involves creating (or 'printing') money; rather, the ECB 'sterlises' the effects on the money supply by withdrawing from circulation an amount of money equivalent to what has been spent on purchasing the bonds. However, some suggest that the manner in which the ECB sterilises its operations often does little to reverse the monetary changes they cause (see Section 2.2)

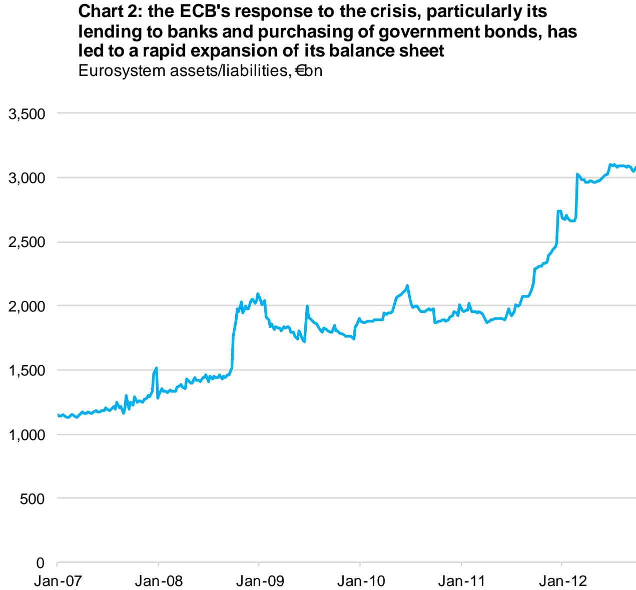


Chart 2: the ECB's response to the crisis, particularly its lending to banks and purchasing of government bonds, has led to a rapid expansion of its balance sheet
Eurosystem assets/liabilities, €bn

Source: ECB Statistical Data Warehouse

Lowering collateral standards, lending over longer periods, and purchasing sovereign debt of countries at risk of default has led to a deterioration in the quality of the ECB's balance sheet, as well as an increase in its size; or as former member of the ECB's executive board, Juergen Stark put it, "the balance sheet of the euro system isn't only gigantic in size but also shocking in quality." The increased possibility of losses on the ECB's operations has raised fears that an additional fiscal burden may be imposed on core eurozone countries if the ECB requires to be recapitalised (see box below). For this reason, the ECB's activities have been characterised as a veil behind which the fiscal risks and liabilities of the periphery are being shared across the eurozone; in effect a means of circumventing public opposition to more explicit forms of debt mutualisation (e.g.

through expanding the eurozone bail-out fund, the European Stability Mechanism, or by taking forward proposals for jointly issued sovereign debt).

Who bears ECB losses?

Euro area Member States pay a capital subscription to the ECB in proportion to their GDP and population share within the eurozone. This capital subscription is worth €6.4bn and is set to rise to €10.8bn by the end of 2012.* The ECB's capacity to bear losses is supplemented by risk provisions (€5.2bn) and revaluation accounts (unrealised gains on holdings of gold, foreign exchange and other investments, totalling €20bn). If the ECB cannot absorb losses through these conventional means, then its Governing Council can call for a further capital increase, which comes from the euro-area's national central banks, again in proportion to population and GDP share in the eurozone.

However, as Buiter and Rahbari (2012)** point out, "the Statute does not explicitly spell out an obligation of the NCBs [the 17 national central banks of the euro area] to respond to a call for more ECB capital... In particular, the Treaty or Statute does not include any requirement for member state governments to recapitalise the NCBs, even if this were to be necessary for the NCBs to be able to recapitalise the ECB."

But even in the event of losses, recapitalisation may not be strictly necessary. Because central banks, including the ECB, are not subject to the regulatory requirements and accounting rules of the commercial banking sector, they can choose to realise losses and run with negative capital; or they can simply elect not to realise losses (e.g. by recording assets at purchase price even if they are in default). The ECB has stated that it regards negative capital as a threat to central banks' credibility and independence (see, for instance, ECB Convergence Report 2010, p.240), although the political controversy attached to a capital call may force it to revise this opinion.

Finally, the ECB also has a significant off-balance sheet asset; namely, its monopoly on creating euro banknotes and other components of the monetary base; indeed, unconstrained by inflation, the ECB's loss absorption capacity is infinite. In the same paper, Buiter and Rahbari estimate the ECB's non-inflationary loss absorbing capacity through its monopoly in euro issuance (i.e. the value of present and future seigniorage) to be as much as €2.9tn.

* The EU's 10 non-euro area central banks provide smaller amounts 'to contribute to the operational costs incurred by the ECB in relation to their participation in the European System of Central Banks': the Bank of England's paid-up capital is €59m, less than 1% of the ECB's total capital. ***Importantly, however, non-euro area central banks, unlike their euro-area counterparts, are not liable to fund any losses of the ECB (nor are they entitled to share in its profits)***. This is because they are not shareholders of the ECB, as defined by its statute.

** Buiter and Rahbari (2012) *Looking into the deep pockets of the ECB*

2 Government bond-buying programmes

2.1 Securities Markets Programme

On 9 May 2010, the same day as the extraordinary meeting of EU finance ministers at which the eurozone bailout funds, the EFSF and EFSM, were devised, the ECB's Governing Council agreed an initiative that allowed it and the euro-area national central banks (NCBs) to 'conduct outright interventions in the euro area public and private debt securities markets'. In short, this enabled the ECB and NCBs to intervene in secondary markets for sovereign and private debt.[1] Officially, the reasons for this were framed in terms of the ECB's mission of maintaining price stability through monetary policy:-

[1] In this context, secondary markets are exchanges of bonds between investors, as opposed to primary markets, which involve purchases of bonds directly from the issuing company or government (Article 21 of the ECB/ESCB statute prevents primary market purchases of sovereign debt by the ECB and NCBs).

> In view of the current exceptional circumstances prevailing in the market, the Governing Council decided: To conduct interventions in the euro area public and private debt securities markets (Securities Markets Programme) to ensure depth and liquidity in those market segments which are dysfunctional. The objective of this programme is to address the malfunctioning of securities markets and restore an appropriate monetary policy transmission mechanism

However, given the context in which the programme was devised, following the onset of the Greek crisis in May 2010, it is clear that another underlying objective of the SMP was to ensure market yields on the government bonds of other euro-area countries did not reach such a level that they too were faced with a funding crisis and the risk of default. In effect, the ECB could generate demand for peripheral sovereign debt through the SMP, thereby putting a ceiling on bond yields (and hence borrowing costs). The EFSF, created at the same May 2010 meeting, required approval from each Member State, a process that took a number of months; thus the SMP was an important early measure to shore-up market confidence in euro-area sovereign debt.

Once the EFSF was in place in Autumn 2010, purchases under the SMP were limited, and it was widely believed that the programme would be permanently wound-down. But as growing fears about the debt sustainability of Italy and Spain began to push up their borrowing costs from July 2011, purchases under the SMP began in earnest again. ECB activity in secondary markets was widely credited with bringing down Italian and Spanish bond yields from over 6% at the start of August 2011 to 5% just two weeks' later. Another precipitous rise in Spanish and Italian bond yields during July 2012 led to further calls for bond-buying under the SMP.

With the announcement of Outright Monetary Transactions on 6 September 2012, the SMP was terminated, with bonds bought under the programme to be held until maturity. As of 9 October 2012, the ECB held €209.5bn of bonds as a result of the SMP.[2]

2.2 Outright Monetary Transactions

Following the meeting of the August 2012 Governing Council, ECB President Mario Draghi hinted that sovereign bond-buying may be restarted, but that this would be 'very different' from what had gone before, with 'conditionality' imposed on governments:-[3]

> The Governing Council, within its mandate to maintain price stability over the medium term and in observance of its independence in determining monetary policy, may undertake outright open market operations of a size adequate to reach its objective. In this context, the concerns of private investors about seniority will be addressed. Furthermore, the Governing Council may consider undertaking further non-standard monetary policy measures according to what is required to repair monetary policy transmission. Over the coming weeks, we will design the appropriate modalities for such policy measures.

At the September Governing Council meeting, the details of the programme, to be called Outright Monetary Transactions (OMTs) were clarified. In its nature and purpose, the programme has similarities with the SMP. Like the SMP, OMTs will involve the ECB buying-

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[2] ECB *Consolidated financial statement of the eurozone, 5 October 2012*. Since the ECB also accepts eurozone sovereign debt as collateral for loans to banks, its actual holdings of eurozone sovereign debt substantially exceed €209.5bn.

[3] Press conference following August Governing Council, 2 Aug 2012, reported in FT Money Supply blog.

up sovereign debt in the secondary market (i.e. from investors, rather than directly from governments) in order to 'safeguard the monetary policy transmission mechanism... to ensure the singleness of our monetary policy and to ensure the proper transmission of our policy stance to the real economy throughout the [euro] area.'

However, in the Press Statement announcing OMTs, Mario Draghi for the first time referred to 'distortions in government bond markets which originate from, in particular, unfounded fears on the part of investors of the reversibility of the euro'. In effect, Draghi was suggesting that some countries' sovereign bond costs were artificially high because investors were attaching a risk premium based on fears that they might leave the euro.[4] This premium, Draghi later argued, in itself raises the likelihood of sovereign default and/or euro exit by rendering countries with previously sustainable fiscal positions insolvent by virtue of their high borrowing costs:-[5]

> the assessment of the Governing Council is that we are in a situation now where you have large parts of the euro area in what we call a "bad equilibrium", namely an equilibrium where you may have self-fulfilling expectations that feed upon themselves and generate very adverse scenarios. So, there is a case for intervening, in a sense, to "break" these expectations, which, by the way, do not concern only the specific countries, but the euro area as a whole. And this would justify the intervention of the central bank.

Draghi stated that the ECB would do 'whatever it takes within our mandate' to counter such fears about the 'reversibility' of the euro; and the press release documenting the technical features of OMTs duly stated that there would be 'no ex ante quantitative limits... on the size of OMTs'. Again, this represents an important departure from the SMP, which was always described as 'limited', a quality that some saw as enticing market participants to bet against the ECB's resolve.[6]

The conditions under which OMTs will take place were made much more explicit than under the SMP. ECB bond purchases under the OMT programme will take place only in the context of a broader agreement involving one of the eurozone rescue funds, the European Financial Stabilisation Facility (EFSF), or its permanent successor, the European Stability Mechanism (ESM). This means that countries benefitting from OMT will be subject to strict economic policy conditions and monitoring by the EU Commission (and possibly the IMF). The ECB are also requiring that the rescue agreement should include the possibility of the rescue funds buying government bonds on the *primary* market. These restrictions convey the anxiety of the ECB firstly that any bond-buying on its part should also be accompanied by externally-monitored fiscal consolidation and structural reform, and that the relief brought by OMT should not be used to delay such measures. They also reflect the importance the ECB attaches to eurozone members and other EU institutions having a stake in the crisis response, through the rescue funds that they jointly guarantee, and of OMTs buying time for lasting structural reform, rather than being a temporary fix when borrowing costs exceed a given level.[7]

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[4] Were a peripheral country to leave the euro and redenominate

[5] ECB *Introductory statement to press conference*, 6 Sep 2012

[6] See, for instance, Re-define *Spiking skywards? Tackling rising yields in the eurozone*, 27 Jul 2012

[7] In its press release describing the technical features of OMTs,[7] the ECB also makes clear that these conditions are necessary, but not sufficient, for the activation of OMT, thereby asserting its independence.

Purchases will be limited to bonds with less than three years' maturity, since this is where the risk premium attached to the fear of euro exit and redonomination is seen to be highest. It also helps the ECB to maintain that it is acting within its monetary policy mandate (up to three years is often described as 'the relevant horizon for monetary transmission'),[8] rather than engaging in 'quasi-fiscal' operations.

The ECB intends to 'sterilise' its purchases under the OMT programme. In theory, this means that if the ECB adds, say, €50bn of cash into the financial system by buying bonds, then somewhere else it will remove €50bn so as to avoid inflation. How central banks go about sterilisation can vary (typically they sell assets from elsewhere on their balance sheet), but in this instance the ECB has chosen to encourage banks to shift their reserve balances from their fully liquid current accounts into one week fixed-term deposits. The deposits are auctioned through a tender procedure, which requires banks put in bids, stating the amount they are willing to tie down for the one week period and the interest rate at which they are willing to do so. The maximum interest rate that the ECB is willing to pay is the main policy interest rate (0.75%), and it begins by picking the cheapest bids until it has met its target level. Because this type of sterilisation merely involves the swapping of fully liquid current account funds for highly liquid (i.e. very short term) fixed term deposits, it has been interpreted by many as merely an operational technicality that does little to reverse the monetary changes caused by OMT purchases.[9]

Finally, the ECB announced that, unlike its previous bond purchases, it would not claim 'seniority' over sovereign debt purchased under the OMT programme. This means that, in the event of a government defaulting, it would not require that it was paid back before other creditors. This is seen as important because the higher the proportion of debt held by 'senior' creditors, the greater the loss borne by ordinary creditors in the event of default, and hence the higher the risk they attach to holding it. A programme of bond-buying under which the ECB claimed seniority could therefore have the opposite effect from what was intended, by pushing government borrowing costs up.

2.3 The political dimension of the ECB's bond-buying

The primary objective of the ECB is price stability, although without prejudice to that objective it may also 'support general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union'. This objective of price stability explains the terms in which the rationale for the SMP and OMTs were couched:-

> The objective of this programme is to address the malfunctioning of securities markets and restore an appropriate monetary policy transmission mechanism [Securities Markets Programme]
>
> the Eurosystem's outright transactions in secondary sovereign bond markets [...] aim at safeguarding an appropriate monetary policy transmission and the singleness of the monetary policy [Outright Monetary Transactions

That is, the stated reason for the SMP and OMTs is to improve the efficacy of the ECB's monetary policy, thereby contributing to its objective of price stability. At the heart of the controversy surrounding the programmes, then, is the idea that the ECB is engaging not in

[8] See, for instance, Bruegel, *The ECB's magic wand*, 28 Sep 2012

[9] See, for instance, Financial News *The myth of ECB sterilisation*, 6 Sep 2012

monetary policy but 'quasi-fiscal operations' that effectively amount to a fiscal transfer to 'sovereigns or banks receiving ECB bail-outs and/or to the tax payers in the (near) insolvent member states that might, but for the ECB's interventions, have faced more severe fiscal austerity.'[10]

Germany is a particularly strong adherent to this view. In particular, the Bundesbank has been highly resistant to the 'flexibility' and non-standard monetary policy the ECB has employed since the outbreak of the euro crisis. It sees measures such as the SMP, OMTs and long-term refinancing operations (see Section 3.2) as detracting from the ECB's primary remit of price stability, and creating a moral hazard by discouraging struggling peripheral economies from fiscal rectitude and economic reform. Disagreements over the SMP are widely thought to have led to the resignation of Jurgen Stark, the German member of the ECB's executive board, in September 2011, and the announcement of OMTs brought these problems to a head once again. Jens Weidmann, the Bundesbank's representative on the Governing Council, cast the sole vote against OMTs, and shortly after the ECB's press announcement of the programme, the Bundesbank released a statement arguing that the measures were 'tantamount to financing government by printing banknotes' and that they 'redistribute considerable risks among various countries' taxpayers';[11] in effect, that they are illegal, inflationary and Germany would bear a disproportionate liability for their failure.

Decision-making in the ECB

The key decision-making body of the ECB is its Governing Council, which consists of the governors of the national central banks of the 17 euro area countries, together with six members of the ECB's executive board (presided over by its President, currently Mario Draghi). It meets twice a month, although new monetary policy decisions are usually only announced at the first of these meetings, on the first or second Thursday of the month.

Under current voting rules, each member of the ECB's Governing Council has one vote each, with decisions going to a vote (itself unusual in the ECB's short history) settled by simple majority. Despite the equality of voting power, the opinions of members of the council representing the major eurozone economies have been understood to carry particular weight. The point was made explicitly by the head of the Bundesbank, and Germany's representative on the ECB Governing Council, Jens Weidmann:-

> I certainly would not say that we are just one of 17 central banks... we are the largest and most important central bank and we have a greater say than many other central banks in the Eurosystem

But the Governing Council's decisions are ultimately a matter of arithmetic, and the outvoting of Germany over Outright Monetary Transactions* has been interpreted as an important shift in the politics of the ECB's response.

*The voting record of the Governing Council is not disclosed. In the Press Statement, Mario Draghi said "there was one dissenting view... it is up to you to guess".

Criticism of the ECB in Germany is not limited to Bundesbank officials: German politicians, the public,[12] the media and even some members of the German Government have expressed concern. As well as the potential inflationary consequences of the ECB's actions, media criticism has focussed on the idea that the ECB, an institution over which no democratic control can be exercised, is handing a 'blank cheque' to peripheral eurozone

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[10] Willem Buiter *The future of the euro area*, 9 Sep 2011

[11] Quoted in *Democracy loses in struggle to save euro*, FT 10 Sep 2012

[12] Even before the announcement of OMTs, an opinion poll conducted in Germany on 5 Sep 2012 found that 42% respondents had little or no confidence in ECB president Mario Draghi. [Forsa for *Stern* magazine]

governments, with profound implications for German taxpayers.[13] The headline in Die Welt following the announcement of OMTs roughly translated as:-

> Financial markets cheer the death of the Bundesbank: ECB President Draghi breaks with principles of German monetary policy. The central bank is pumping unlimited money into bond markets. Stock markets cheer – for Germany the nightmare begins

Although the Securities Markets Programme formed part of the package of complaints to the German Constitutional Court challenging the legality of some elements of the eurozone's crisis response, the Court did not pass a ruling on this aspect of the case in its judgement of 7 September 2011.

2.4 Legal authority for the ECB's bond-buying

Primary bond market purchases

Article 123 of the Treaty on the Functioning of the European Union, commonly known as the 'prohibition on monetary financing' is the key legal limitation to the ECB's activities in government bond markets.

> Overdraft facilities or any other type of credit facility with the European Central Bank or with the central banks of the Member States (hereinafter referred to as 'national central banks') in favour of Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States shall be prohibited, **as shall the purchase directly from them by the European Central Bank or national central banks of debt instruments** *[author's emboldening]*

In short, this prohibits the ECB buying sovereign debt when it is intially auctioned (i.e. in primary markets), through money creation (a process known as 'monetisation'), or any other mechanism. It has also been cited, in an ECB legal opinion, as the reason why the permanent eurozone rescue fund, the European Stability Mechanism, cannot be granted a banking license.[14]

This is in contrast to the national central banks of countries outside currency unions: the Federal Reserve in the US and the Bank of England in the UK, for instance, can act as 'lender of last resort' to government. In practice, they do not generally have to do this; what matters is that they have a credible institutional backstop that stands ready with an unlimited commitment to finance government spending. The risk investors take on when they buy UK or US debt is thus not a risk of default (known in the jargon as counterparty risk), but a risk of inflation, since the process of creating money to buy debt can be inflationary.

In order to empower the ECB to make direct purchases of eurozone sovereign debt, a treaty change would be necessary.

Secondary bond market purchases

The legal authority for the ECB's SMT and OMT programmes, which involve purchasing bonds on the secondary markets, is contained in Article 18 of the Statute of the European System of Central Banks and of the European Central Bank. This is reproduced below:-

> 18.1. In order to achieve the objectives of the ESCB and to carry out its tasks, the ECB and the national central banks may:

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[13] "Blank cheque for the indebted states" was the front-page headline of German newspaper *Bild* on 7 Sep 2012.

[14] This would enable it to borrow from the ECB and lend funds on to crisis-striken eurozone states. The legal opinion in question is contained in Paragraph 9 of the opinion of the ECB on the Article 136 TFEU amendment (CON/2011/24)

- operate in the financial markets by buying and selling outright (spot and forward) or under repurchase agreement and by lending or borrowing claims and marketable instruments, whether in euro or other currencies, as well as precious metals;

- conduct credit operations with credit institutions and other market participants, with lending being based on adequate collateral.

18.2. The ECB shall establish general principles for open market and credit operations carried out by itself or the national central banks, including for the announcement of conditions under which they stand ready to enter into such transactions.

3 Other measures

3.1 Covered bonds purchase programmes

Covered bonds are debt issued by banks backed by a specific pool of collateral, typically made up of mortgages and public-sector loans. The bonds, which underpin much of Europe's real estate lending, are seen as a particularly safe form of bank debt, since the size of the pool of collateral is required to be maintained, and assets pledged as collateral for a covered bond remain on the banks' balance sheets (thereby giving the issuer bank an incentive to keep only high quality assets).

The market for covered bonds came under pressure in the aftermath of the financial crisis, with borrowing costs increasing and demand weak. The implications for financial stability of the drying-up of this source of wholesale funding for banks was particularly severe because banks were at that time unwilling to lend to each other on an unsecured basis. The developments led to the ECB stepping into both primary and secondary covered bond markets, making €60bn of purchases between June 2009 and June 2010. On 6 October 2011, the ECB announced a second covered bond programme. It was expected to comprise €40bn of purchases over a 12-month period starting in November 2011; however, at the time of writing, only €16.3bn of bonds had been acquired.[15] Like longer-term refinancing operations (LTROs, see Section 3.2), the intention of the programmes is to provide a source of liquidity, particularly for banks in the eurozone periphery, which have had trouble finding purchasers for their covered bonds.[16]

3.2 Longer-term refinancing operations

Refinancing operations, also known as repurchase agreements, involve financial institutions putting up collateral in return for a loan from the central bank. All inflation-targeting central banks (including the ECB) use refinancing operations to achieve their target interest rate: this is done both through the impact such operations have on the supply of money (i.e. liquidity), and through the interest rate charged on these loans. For these purposes, the most important instruments are short-term loans: in the ECB, these are known as main refinancing operations and have a maturity of one week.

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[15] ECB *Consolidated financial statement of the eurozone, 5 October 2012*

[16] Reuters *ECB covered cure yet to convince*, 6 Oct 2011

Refinancing operations can also be used at times of stress in financial markets to provide liquidity. In such cases, longer-term refinancing operations (LTROs) are commonly used to provide banks with more stable funding, averting the need for central bank loans to be rolled-over each week.

On 6 October 2011, the ECB announced it would conduct two LTROs with 12 months' and 13 months' maturity. On 8 December 2011, it made the more significant step of announcing two three-year LTRO auctions, with the option of repayment after one year.[17] Demand for the first set of three-year LTROs in December was greater than expected: 523 banks borrowed €489bn under the facility, making it the largest single refinancing operation in the ECB's history. That record did not stand for long: the second round of LTROs in February saw banks borrow €530bn.

The LTROs, together with Covered Bond Purchase Programmes, are intended to deal with a gradual withdrawal of long-term funding for banks; that is, investors becoming increasingly unwilling to make long-term unsecured loans to banks, particularly those in the eurozone periphery, as government guarantees for financial sector debt expire, and the prospect of further public support for banks looks more remote in the context of the sovereign debt crises.

As well as restoring confidence to the financial sector, it was also hoped that the funds would stimulate demand among banks for peripheral eurozone bonds, especially in Italy and Spain, thereby reducing these countries'

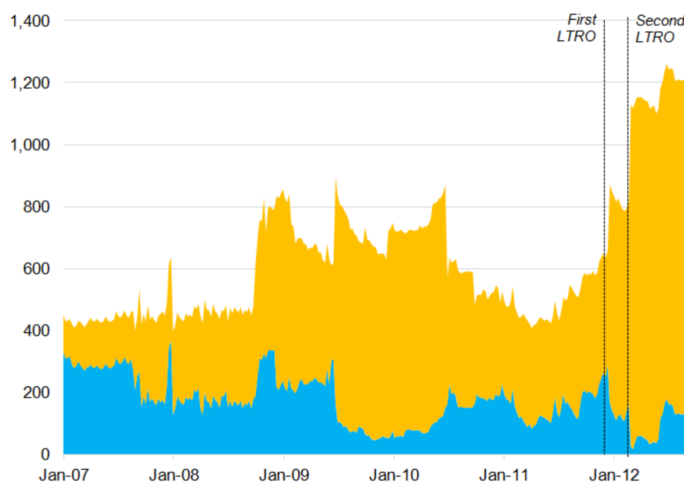
The change to fixed-rate full allotment auctions

Under normal circumstances, the ECB conducts refinancing operations by announcing the amount of liquidity it wishes to auction (i.e. the amount of borrowing it wishes to make available) in advance: banks then bid the amount of money they want to borrow, and the interest rate they want to pay. Since mid-October 2008, however, the ECB has conducted all its refinancing operations, including the 3-year LTROs, on a **fixed-rate full allotment** basis, under which an unlimited amount of credit is available at a pre-specified rate: banks simply specify the amount they wish to borrow. Originally, the change was to last for six months, but ECB refinancing continues to be conducted in this way.

Like the other ECB measures, the change was intended to increase the availability of liquidity, and reduce stress and uncertainty in financial markets: under fixed-rate full allotment, banks know in advance that their bids will be successful (subject to having adequate collateral), and what rate they will pay on their borrowing. The measure has been described by one member of the ECB executive board as 'probably the most significant non-standard measure the ECB is implementing'.

Chart 4: the introduction of 3-year LTROs, which offered long-term credit at a relatively cheap rate, has led to an increase in lending by the ECB to banks

Lending to banks via refinancing operations, Jan-07 to Oct-12, €bn



Source: ECB Statistical Data Warehouse

[17] Borrowers using the October 12-month LTRO were permitted to shift outstanding amounts into the first 3-year LTRO.

borrowing costs.[18] In effect, the ECB, being prohibited from buying-up government debt directly, was supplying credit at sufficiently cheap cost (the interest rate of the LTROs is tied to the main refinancing rate, currently 0.75%) to make the purchase of peripheral government debt an attractive proposition for financial institutions. Following the first set of 3-year LTRO auctions in December 2011, a reduction in borrowing costs for Italy and Spain did indeed occur, although the effect was only temporary and by July 2012 Italian and Spanish bond yields were once again reaching record highs.

Some commentators see the LTROs as simply storing-up problems for the future, as banks will have to refinance their borrowing in three years' time. They also means that banks' collateral is now tied-up at the ECB, meaning the prospects for banks once again lending freely each other is still more remote, since they have fewer assets against which borrowing can be secured. In effect, according to some, the LTROs risk turning the ECB into a lender of first instance, rather than a lender of last resort.[19] Some have also questioned whether it is prudent for banks to increase their exposure to peripheral sovereign debt . ...could have broader implications for the corporate debt market, as banks simply let their outstanding debt mature, rather than roll it over. This 'shortage' of corporate debt could create problems for insurance and pension funds, which have little choice but to hold such debt for regulatory reasons.

3.3 Lower collateral standards

All of the ECB's lending is secured against assets which must meet standards set down by its governing board; in effect, the assets must not be at too great a risk of losing their value. However, the ECB has made changes to these requirements, allowing Irish, Greek and Portuguese sovereign debt to be used as collateral for bank loans, despite being assigned 'junk' status by credit ratings agencies. In December 2011, at the same time as it announced the 3-year LTROs (see Section 3.2), the ECB widened the range of acceptable collateral for drawing on this funding. Despite the lowering of standards, the value of collateral continues to be 'marked to market'; that is, the ECB values assets pledged as collateral at the going market rate rather than the face value.[20] 'Haircuts' (i.e. reductions in valuation) are also applied to collateral, of between 0.5% and 46% depending on its quality.

The lowering of collateral standards has been another controversial element of the ECB's response to the crisis, particularly in Germany: the head of the Bundesbank, Jens Weidmann wrote to the ECB's president Mario Draghi complaining about the lowering of collateral standards and the possibility of losses on its LTRO operations.[21]

3.4 Dollar swap facilities

These are intended to ensure eurozone banks have access to ECB funding denominated in dollars as well as euro. This is necessary because some euro-area banks' business is conducted in dollars, and at times of financial market stress, access to dollar funding on the

[18] At 1%, the interest rates on the LTROs makes it profitable for banks to use these funds to buy-up Spanish and Italian bonds. The ECB is prohibited by statute from financing governments directly (i.e. buying their bonds at auction), and the practice of buying them on secondary markets (i.e. from investors) has proved controversial. The LTROs are arguably a less legally questionable means for the ECB to contain rising government borrowing costs.

[20] In the absence of a market, the ECB is free to set the price itself.

[21] See, for instance, Die Welt *EZB-Bazooka macht den Euro-Crash richtig teuer*, 29 Feb 2012

open market can dry up, just as it does for the euro, requiring the ECB to act as a dollar lender of last resort. The first dollar swap line started December 2007 with the US Federal Reserve offering the ECB (and other central banks) the possibility of borrowing unlimited amounts of dollars. These dollars were then lent on to euro-area banks. The Fed-ECB swap line expired in October 2009, and was reinitiated for fourteen months in May 2010, and extended in June 2011 and again at the end of November 2011. At this point, the Federal Reserve also cut the interest premium it charges other central banks (including the ECB) on dollar lending from 1% to 0.5% in an attempt to stimulate demand for the facility (since the lower interest rates would be passed on to banks through the ECB), as part of a co-ordinated action by a number of central banks to boost liquidity.[22]

3.5 Emergency Liquidity Assistance (national central banks)

In addition to the measures to increase liquidity undertaken by the ECB, some National Central Banks (NCBs) of the euro area have undertaken lending to financial institutions faced with funding crises.[23] This activity takes place outside the framework of the European System of Central Banks, so it is instigated by the NCB concerned,[24] and any costs arising from these operations are the responsibility of the state.[25] Irish banks made use of emergency liquidity, and on 25 August 2011, the Greek central bank activated a similar scheme. NCBs can set their own collateral standards for liquidity assistance: these standards tend to be lower and interest rates higher, so that banks only tap the scheme once they run out of eligible assets to use as collateral at the ECB. There is comparatively little information on the extent to which banks make use of NCB emergency liquidity, although the Greek bank Piraeus acknowledged use of the facility.[26]

[22] The Federal Reserve, the Bank of Canada, the Bank of England, the Bank of Japan, the ECB and the Swiss National Bank all announced liquidity support measures on 30 November. Further details are available at the links.

[23] This activity is not a unique response to the eurozone crisis; rather, it is a traditional tool available to central banks for dealing with financial instability.

[24] However, Article 14.4 of the Statute of the ESCB and the ECB allows the ECB to instruct NCBs to cease such measures if the Governing Council finds by two-thirds majority ‘that these interfere with the ojectives and tasks of the ESCB’.

[25] See, for instance, Willem Buiter *ELA revisited: a clarification*, 11 Feb 2011

[26] Reuters, *Greece’s Piraeus bank turns to emergency funding*, 31 Aug 2011