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What role has the European Central Bank played during the European Sovereign Debt Crisis?

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Introduction

The European project, which has been an on-going endeavour to form an ever-closer union between the nations of Europe, has come under considerable stress ever since the outbreak of the global financial crisis in 2008. While the financial distress brought about by a collapse of the subprime mortgage markets in the United States and subsequent solvency problems of banks have had long-lasting ramifications the world over, nowhere in the world was the response the slowest and the fall-out the longest than in the countries of the Eurozone. While there has never been a true consensus on the exact reasons for this, a substantial number of both politicians and pundits have pointed to fiscal profligacy in the EU's southern members as the root cause of the EU's ailments. While this analysis may certainly have merit for certain states – Greece being a prime example – the theory nevertheless fails to be a plausible explanation that accounts for the Euro-region's problems as a whole when one considers the facts.

Fiscal profligacy, or a chronic government budget shortage, does nothing to explain the situation of the other countries that applied for financial assistance in the aftermath of the crisis. Nearly without exception, these countries were running budget surpluses that exceeded even those of many northwest European states in the years leading up to 2008 (Hancké 2013, 4). It appears, therefore, that another perspective is needed to gain insight in the maladies that plague Europe today. This thesis will offer a critical look at the responses that the European Central Bank (ECB) has taken to prevent and solve the European Sovereign Debt crisis as it has come to be known after the initial liquidity shocks of the financial collapse turned into more long-term solvency issues for both banks and governments. The reason for this is twofold; First of all the ECB, ever since its creation in 1998 as stipulated in the Maastricht Treaty of 1992, is the primary institution involved with ensuring both economic harmonization and prevention of the exact type of crisis that occurred in 2008. Secondly the ECB, alone amongst the myriad institutions that the European Integration Project has spawned over the years, faces an existential threat in the fallout of the financial crisis. If in the near future the strains on the European economy become so great that it will be forced to abandon its common currency, the ECB will vanish with it. The bank, therefore, has both a responsibility and an incentive to ensure the European Monetary Union recovers.

So what exactly has the ECB been doing to curb the effects of the financial crisis, and is this what it should have been doing? More concretely, what role has the European Central

Bank played during the European sovereign debt crisis? This paper will attempt to answer these questions through contrasting the actual policies of the ECB with a framework of expected behaviour of central banks to find out whether and in what ways the ECB deviated from their expected role, and for what reason. This framework will be constructed by drawing on the works of the economist Walter Bagehot, in particular his seminal work "Lombard Street: A description of the Money Market", and others who have added and critiqued his work on central banking since then.

This paper, consequently, will be structured as follows: The first chapter will endeavour to establish a framework for optimal central banking based on the works of Bagehot, in order to be able to later contrast the policy of the ECB against this index of Central Banking prescription to see how it lines up. The second chapter will focus on the inner workings of the ECB, providing insight in both the history of its creation as well the treaties and policy aims that underpin and shape its behaviour. It will then proceed with an overview of the ECB's primary policy responses to the crisis, as well as analysing which problems it is trying to address with it, as well as why. The last two chapters of this paper will then fully be dedicated to try to bring the two together. First, it will try to isolate and analyse those moments were the ECB policy deviated from the expected norm. Subsequently, it will delve into an exploration of the possible reasons for the deviation. In conclusion, this thesis will bring together the main findings of the comparison to give a full account of the role of the European Central Bank in the European Financial Crisis, as well as provide suggestions for further research and policy recommendations for ECB reform.

Chapter 1: The Role of Central Banks

In this first chapter we will discuss the central tenets of central banking as they have been formulated in the literature over time. By distilling the core elements of the role of central banks in an economy, we can construct a framework through which we can analyse the policy of the ECB in subsequent chapters.

The first role of central banks we should consider is its function of maintaining price stability within an economic system. This role is perhaps the most conventional of the CB's duties, and as it is the one that the ECB itself considers to be its primary objective, it is a logical starting point to begin our analysis. In actuality, maintaining price stability is related closely to one of the other tasks of the CB, namely its status of overseer of the money supply. Central Banks, ever since their introduction, have taken over the role of national mint within a society. While the money supply was in the past often linked to a country's available gold supply, this money is nowadays often created ad nihilo – literally out of thin air. A Central Bank obviously cannot create money from nothing indefinitely because money, like any other good, decreases in value the more abundant it becomes. This decrease of the value of money in relation to the price of goods is known as inflation, and maintaining price stability, then, is ensuring that inflation stays within limit over the medium to long term. It therefore makes sense that the Central Bank apart from its role in the creation of money is responsible for ensuring price stability, is their ability to create money is effectively constrained by their responsibility to make sure prices remain stable. Considering this, it is easy to see why its next charge, the maintenance of financial stability, is somewhat more problematic. To truly understand why their considerable more debate surrounding the role of central banks in financial stability, we first have to examine the various aspects of the financial system and the processes involved with its stability itself.

In the financial system, private banks both store money private individuals have kept with them, and offer loans to these private individuals using the capital they have in their vaults. These private individuals, in turn, can use this money to invest in business or increase their spending, bolstering the economy. The bank collects interest over their loans, and is able to generate a cash flow through their debt collection. The problem arises, however, from the fact that in most cases the value of bank loans exceeds the amount of liquidity they have in stock. If for whatever reason their customers decide to withdraw all of their assets at once, the bank runs into problems honouring their obligations. This sudden illiquidity can devolve into

long-term insolvency, when the amount of money owed exceeds the total amount of assets of a bank, triggering a collapse. Such a collapse can in turn cause uncertainty among the clientele of other banks, causing them to withdraw their assets as well. These bank runs allow the illiquidity of a few banks to spread throughout the financial system, even to banks that might not have been insolvent in the first place. This process is commonly known as contagion and is essentially self-fulfilling, since the expectation that banks will be unable to honour their obligation will lead to a situation where this is actually the case. Contagion and bank runs can wreak havoc on an economy, and will therefore certainly have repercussions for long-term price stability as well. In the words of Jeremy Stein (2012), banks do not behave socially optimal because they do not fully internalise their own costs. Both the need for an institution that is able to prevent the financial system from getting caught in such a destructive spiral, and the implications such a developments has on price stability, make the Central Bank the most logical option of fulfilling the responsibility over financial stability as well.

What is more, because of their capacity to, in theory, generate unlimited amounts of liquidity makes them the only institution that can give a credible guarantee to the clients of banks and prevent bank runs. As was pointed out earlier, however, the ability of Central Banks to generate liquidity is in reality not unlimited because of the effects this would have on price stability. The two roles are therefore both intrinsically linked and to some extent conflicting.

This is not necessarily the case, however, according to Henry Thornton (1802), one of the foremost scholars on the subject of Central Banks and financial stability. What at first glance appears to be an insurmountable conflict between two functions is, according to Thornton, simply reconciled as two roles operating under different timescales. Central Banks are committed to price stability in the long run whereas maintaining financial stability is only relevant in times of crisis, which are inherently short-lived in nature. While averting a crisis has some disruptive effect on price levels, in the long run the increased liquidity in the system is preferable to a total system collapse. With this dichotomy remedied, it can be confidently argued that the provision of liquidity to banks by the Central Bank to stave of a financial crisis – a concept that is more commonly known as Lending of Last Resort (LLR) – is as much a part of central banking as is keeping prices steady. There are, of course, several ways for CB to conduct themselves as LLR, and considering the fine balance between price and financial stability, many ways to do it poorly.

In order to construct a comprehensive framework of LLR best practices, we must turn to the British economist Walter Bagehot and his seminal work "Lombard Street: A

Description of the Money Market" (1873). Bagehot's work on Central Banking theory, which remains influential up until this day, can be summarised through his most famous quotation, which is thus: "In times of crisis, Central Banks should lend freely, against high rates and to sound financial institutions". We will deal with all the separate aspects of this phrase in turn to get a sense of how, and under what conditions, Central Banks should act as a LLR.

But before we do so, it is important to examine the applicability of Bagehot – writing almost a century and a half ago - on today's world of economics. According to Marvin Goodfriend (2012), "Bagehot's Rule is widely referenced as the rationale for central bank lending today". This is remarkable for any work written so long ago, especially in a field as dynamic as economics. According to DeLong (2012), there are three reasons why Lombard Street remains such an important work in central banking theory to this day. The first is that, according to him, economics as a field tends to rely on statistical and theoretical models that fail to account for banking crises since they occur so infrequently it is difficult to integrate in a long-term theoretical model. The second reason is that, while crises such as the one that occurred in 2008 are very rare, the transmission mechanism by which they operate are essentially the same one as Bagehot described in the 19th century. Thirdly, and perhaps unsurprisingly considering the above, contemporary responses to this kind of crisis retain a "remarkable family resemblance to those proposed by Walter Bagehot" (DeLong, 14). It appears then, that Bagehot's work can still be of relevance in understanding the expected role of central banks in modern society, and we can therefore confidently begin our analysis of Bagehot's famous adage.

The first notion, that during a crisis CB's should lend freely to financial institutions lines up with what has been previously discussed. By using its ability to generate money it can credibly guarantee to the customers of a bank that the bank will be able to honour their debts, thereby preventing insecurity from spreading. In this respect Bagehot goes even further than Thornton, who argued that Central Banks have no responsibility over preventing crises, only over preventing their spread once they occur. Bagehot argues that the mere fact that the Central Bank is able and shown to be willing to give such a guarantee, already goes a long way to providing security to the financial system and preventing self-fulfilling shocks to the system in the first place. The second concept formulated by Bagehot, is that the liquidity provided by the Central Bank should be lent against high rates.

There are a few reasons there should be a high price to LLR according to Bagehot, the most important one being preventing *moral hazard*. In essence, moral hazard is a situation in which an actor takes more risks because another actor bears the responsibility over the

consequences of those risks. In the context of central banking, what this means is that banks will be incentivized to take even bigger risks with their capital if they know they can always rely on the CB to bail them out. In this way, some scholars argue, a central bank acting as LLR to the banking system will cause those banks to become increasingly irresponsible. For this reason Bagehot argues that CB's should always lend against high rates to deter banks from becoming overly reliant on liquidity provided by the CB and encourage them to exhaust all other options to stabilize their finances before seeking aid. As we will demonstrate in the following chapter, it is this recommendation that the ECB has most often ignored in their response to the financial crisis.

The second argument for lending against high rates brings us back to the interplay between price and financial stability. Because of the steep cost of relying on CB assistance, banks will be pressured to repay their debts to the CB as soon as they possible can. This means that the increased liquidity that enters the system in times of crisis also drains from the system again as soon as possible, putting the stability of price levels under strain for no longer than absolutely necessary.

It is in this second prescription that time seems to have caught up with Bagehot, and where most modern assessment of CB policy deviates from the policy proposed in Lombard Street. This is perhaps to be expected, since Bagehot wrote in a time when the currency was still tied to the gold standard, as opposed to a system of fiat currency. Martin (2005) argues that the advice to add liquidity at a very high rate was justified in relation to the "the drain of gold", but in a system of fiat currency a central bank can and should supply liquidity in an emergency against low rates. Martin therefore believes we should instead prefer Thornton's analysis, who wrote in a time after the gold standard and who does not advocate a high rate penalty on loans. Moe (2012, 11) concurs and asserts that the preferred method of LLR should be conditioned on the particular type of liquidity shortage, wherein high rate penalties are suitable only in a situation of short-term liquidity shortage, and not during a period of systemic liquidity and solvability problems. While this analysis does make the important point that in Bagehot's time the ability of adding liquidity was necessarily constrained by the gold standard, and that rates so high as to disincentivize banks from seeking CB support at all, it does nothing to dispel the principal reason why Bagehot advocates high penalty rates in the first place, namely the prevention of moral hazard. It is evident therefore that while too high rates are arguably as harmful as keeping them too low, high interest rates can still provide an effective tool in preventing irresponsibility on the part of the banks.

Bagehot's last LLR recommendation is perhaps the most problematic to apply in practice. According to Bagehot, CB lending should only be done to "sound financial institutions" that can put up the required collateral to prove their health. This, once again, is necessary to avoid the problem moral hazard. If banks know that they will always be bailed out regardless of the state of their affairs, this would encourage irresponsibility in the same way that offering cheap loans would. In Bagehot's mind, there is no single institution that is so fundamental to the economic system as a whole that it would warrant being saved regardless of the circumstances. Essentially – to use the common parlance most often heard in this context – no bank is ever too big to fail. The problem with this prescription comes down to the fact that it can be quite hard to distinguish insolvent banks from those that are merely illiquid. As Paul De Grauwe (2013) rightly points out, the two often cause or exacerbate one another in such a way that banks that only suffer from a short-term liquidity problem can become insolvent in the long run if not relieved immediately.

There are a few other reservations to take into account before we can apply the recommendations by Thornton and Bagehot to the analysis of the ECB response to the financial crisis. First of all, both authors wrote in a time when currencies were still tied to the Gold Standard, so a lot their writing applies to CB's maintaining their gold supply, which was naturally limited. Still, as the ability of modern CB's to generate liquidity is similarly limited by their responsibility over price stability, this provides no real problems in applying the recommendations to the ECB. What does present a more formidable obstacle, however, is the extent to which their ideas can be applied to national governments rather than banks. Bagehot and Thornton only ever considered the role of a central bank within a national economy, and the situation of the ECB – effectively a Central Bank to other, national Central Banks – which operates in a system with multiple national governments tied to one currency over which they only have limited control, is markedly different. While we must be conscious of this limitation, there is still evidence to suggest that Bagehot and Thornton's ideas remain as valid as they always have been. In particular, Paul De Grauwe's description of the "deadly embrace" between banks and governments offers a compelling argument for why LLR to national governments is as important as it is to private banks. The reason for this, De Grauwe argues, is that there is strong interdependency between the sovereign and the banks. When the sovereign gets into problems the falling government bond prices threaten the banks, which are the main holders of government debt. When the banks collapse, governments that do not want to let down the banks are threatened with insolvency. If one of the two falls off the cliff the other one is pulled down also. Any Central Bank committed to saving the economic system,

therefore, cannot hope to accomplish this by ignoring the fate of sovereign governments. This goes doubly so for a situation where the collapse of a government threatens the stability of a currency that is shared by multiple national governments. Contagion does not only happen in the banking sector, it may very well occur between users of a same currency as well.

So, what characteristics must a credible Central Banking strategy possess? As has become apparent in this chapter, a CB cannot afford to ignore its duties when it comes to maintaining financial stability, as in doing so it would risk adversely affecting price stability as well. When and if a CB finds itself in a crisis, it must be willing to commit itself fully to guaranteeing the security of the financial institutions it deems sound – be they banks or sovereigns. When acting as a Lender of Last Resort to these institutions, it must only ever offer their assistance at a steep rate, though not too steep as to disincentivize banks from seeking assistance at all, to ensure responsibility on the part of the banks and governments and to allow the added liquidity to depart the system as soon as possible. Now we have a clearly established outline of preferred central banking policy, we can use it to contrast the theory to the reality of ECB policy responses to the crisis. Before we do so, however, we must dedicate some attention to the institutional history of the ECB to gain insight in the regulations and processes that govern its decision-making. A table briefly summarizing the chief policy recommendations can be found below.

Policy Recommendations: Lend freely, against high rates, to sound financial institutions

What?	How?	Why?
Lend freely	Inject liquidity into the system by making extra credit available to financial institutions for as long as is necessary	To prevent contagion by providing a credible guarantee to banks and reassure their clients of their long-term viability.
Against high rates	Requiring high penalty in the form of interest rates on the loans provided.	To prevent moral hazard, by ensuring banks exhaust all their option before coming to the CB, and by incentivizes banks to repay their debts at the earliest possible moment
To sound financial institutions	Gathering information on the health of financial institutions to gain insight in their long-term viability	To prevent moral hazard by lending only to institutions that can put the money to good use, and to prevent waste caused by lending to irresponsible institutions.

Chapter 2: The institutional history of the European Central Bank

Before we can properly analyse the European policy responses to the European Sovereign debt crisis, it is important to get a clear view on the nature of the institutions most closely committed to this task. This chapter will provide an overview of the founding history of the ECB, its legal base, policy aims and decision-making structure and an account of its policy responses since 2008 up until the present day. Gaining insight into the actual workings of the ECB is important, because it allows us not only to determine what exactly they have been doing since the outbreak of the crisis, but also because it provides us with clues into the reasons behind the policy. By combining both its history and institutional make-up with its policy agenda, we can get an insight not only into the what, but also the why of European Central Banking.

Finding a useful starting date for our story is a bit more problematic than taking the foundation date of the institution, June 1st 1998, and proceeding from there. While the ECB was officially established and became a legal entity on this date, most of the underlying treaties and regulations that govern its behaviour had already been p set out. On the other hand, economic integration is one of the longest and most extensive aspects of European integration, so giving a complete account of the central bank's history could take us all the way back to the Treaty of Rome in 1958 or at the least the Marlin Memorandum of 1962 which first initiated real discussion on monetary integration within the European Community. As such a detailed history is well outside the scope of this paper, we will confine ourselves to its history since the Delors Report, which first concretely outlined the necessary steps towards a monetary union, and the Maastricht Treaty, which established both the common currency of the Euro and the ECB as the institution responsible for it. The Delors Report (1989) was the result of a commission chaired by then European Commission President Jacques Delors in order to devise a specific roadmap towards European monetary integration, proposed three "discrete but evolutionary steps" to fully establish the European Monetary Union. Stage One would complete the internal market and reduce existing disparities between the economies eligible for participation. Stage Two would set up the organisational structure and basic organs of the EMU, serving as a transitional phase before the final stage and aimed to strengthening economic convergence. Stage Three would then, finally, lock exchange rates between currencies and the institutions related to monetary integration – the European Central Bank – would enter into force and be assigned their full responsibilities (Schaller 21).

Stage One commenced on the 1st of July 1990, and at this point all restrictions on the movement of capital were lifted and the Council of Governors of central banks was given extra responsibilities. While Stage One could still be implemented under the pre-existing framework of the Community, the implementation of Stages Two and Three would require institutional reform, and as a result an Intergovernmental Conference (IGC) on EMU was held in November 1990. This IGC resulted in the drafting of the Treaty of European Union, more commonly known as the Maastricht Treaty, which set out most fundamental legislation for the EMU and ECB and was signed and ratified in 1992 and 1993, respectively. Stage Two started in 1994 with the establishment of the European Monetary Institute (EMI), which is the predecessor organization of the ECB and fulfilled the same function, albeit on a much smaller scale and with a much more limited mandate. It was essentially created as a transitional body between the Council of Governors and the ECB, and it's main two tasks were strengthening central bank cooperation and monetary policy coordination on the one hand, and making the necessary preparations for the introduction of the ECB and the single currency on the other (Scheller 26). The last phase of the Delors Report, Stage Three, officially started on January 1st, 1999 with the announcement of the changeover to the Euro in 2002 after a transition phase of three years. It was on this same date that responsibilities for the European monetary system were transferred from national central banks and the EMI to the ECB.

The articles of the Maastricht Treaty and other relevant regulations were initially supposed to be consolidated into a European Constitution. This constitution faced opposition in several Member States, however, and ultimately never came to pass. Subsequently, the legal basis and aims of the ECB were amended first through the Amsterdam and Nice treaties, and finally through the Treaty of Lisbon (2007) which amended the two treaties that form the constitutional basis of the European Union: the Maastricht Treaty –also known as the Treaty on European Union – and the Treaty of Rome, which was subsequently called the "Treaty on the Functioning of European Union" (TFEU). Although the list of regulations on the functioning of the ECB and the Euro system are extensive and diverse, there are a few article that are worthy of special attention. Article 127(1) of the Maastricht Treaty defines the aim of the ECB to "maintain price stability" and continues "Without prejudice to the objective of price stability, the ESCB* shall support the 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" (Maastricht Treaty). Price stability, as defined by the Council of Governors in 1988, was defined as "inflation around 2% annually on the medium term." Further tasks of the Euro system and the ECB were laid out in Article 127(2),

including such responsibilities as defining and implementing monetary policies for the Eurozone, conducting foreign exchange operations, managing foreign reserves and to promote smooth operations of financial markets.

Another obvious but nevertheless important duty is the issuance of Euro banknotes, to which it has the exclusive right. Furthermore, under the Treaty, the ECB is expressly prohibited from borrowing money or buying government bonds from member states directly. As will become apparent in the following chapters, both the prohibition of lending directly to national governments and the explicit narrow focus on price stability will provide important clues in explaining the behavior of the ECB during the crisis.

The three decision-making bodies of the ECB are overseeing the mandate that is derived from these aforementioned treaties. The day-to-day governance of the institutions falls to the Executive Board, which is composed of the President and Vice-president of the Bank and four other members (ECB governing council). The members of the executive board are not elected but appointed "from among persons of recognized standing and professional experience in monetary or banking matters by common accord of the governments of the Member States at the level of Heads of State or Government, on a recommendation from the Council, after it has consulted the European Parliament and the Governing Council of the ECB" (article 11.2 sec statute). The Governing Council is the main decision making body of the ECB, and consists of the members of the executive board and the governors of national central banks (ECB Governing Council). Lastly, the General Council deals with matters relating to the adoption of the Euro, and will continue to exist until all EU members have adopted the Euro, at which point it will be dissolved.

Following from the institutional characteristics of the ECB, we can conclude that the ECB's primary function is to preside over the monetary system of the EU, ensure prices remain stable and issue the national central banks with currency. The way it does this differs drastically from the system other central banks – such as the US Federal Reserve – use, namely the buying of government bonds and Treasury securities. As the ECB is constrained by the Treaty in doing it in a similar way, it instead provides liquidity to banks through repurchase (repo) auctions. In essence, this amounts to the approximately 1500 private banks that are eligible bidding on short-term contracts by offering collateral, usually government debts or other valid securities, in exchange for liquidity. These contracts last anywhere from two weeks to three months, and must be repaid at the due date. On due-date, the repo contracts become available again, and the auction begins anew. By increasing or decreasing the contracts available for auction, the ECB can manipulate the amount of liquidity in the

system. In theory, the stringent requirements of membership to the European Union should ensure that the assets offered as collateral are all equally good and protected from the risk of inflation. With regards to the crisis response of the ECB, there are in principle two different policy tools the ECB has implement, being their Long-Term Refinancing Operations and the Covered Bond Purchasing Program.

A Long-Term Refinancing Operation (LTRO) is a system of cheap loans to European Banks. Its process is similar to the repo contract auctions, with banks backing up their loan request to the ECB through their own national bank, effectively assuring that all collateral is assessed nationally and up to standard. The key difference between LTRO's and a normal repo auction is the duration, with LTRO's having a much longer repayment due date than repo's. Their main goal is to provide banks with the needed liquidity to honour their debt obligations and to boost cash flows in the market and to stave of a credit crunch or bank collapse.

The Covered Bond Purchasing Programme is a program that allows the ECB to purchase government bond securities from private banks. Because of the stipulations of the Maastricht Treaty, the ECB is unable to purchase sovereign bonds outright, but by buying or accepting them as collateral from private credit institutions, the ECB is able to circumvent this condition in a limited capacity. Quantitative Easing is another important concept in understanding the crisis response of the ECB. In essence, QE is a non-standard monetary policy measure in which a central bank buys financial assets from private financial institutions, raising the value of those assets by increasing demand while also increasing the money supply into the financial system. The CBBP, therefore, is a policy tool that can be described as a form of QE.

At the outbreak of the crisis, the first policy response by the ECB was intended to address the acute insolvency and liquidity problems faced by banks because of the financial shocks of the crisis. When the standard policy of repo auctions became insufficient in supplying liquidity to the economy, the ECB moved on to a system of fixed-rate full allotment – the previously mentioned LTRO's. It also lowered the rating threshold for collateral, making it easier for banks to apply for loans, and engaged in currency swaps with many major CB's, including the FED and the Bank of Japan. After a while, it introduced its first round of CBPP to make sure that the system maintained enough liquidity and to encourage financial institutions to increase their lending through this new liquidity. In the first half of 2010 the situation of the financial markets seemed to be improving, and the balance sheet of the ECB even decreased slightly, the first time since the start of the crisis when it increased by around

30%. However, the perception existed that such "non-standard monetary policy", as the liquidity injections such as LTRO were seen, could be dangerous because of the extensive intervention in the money market could lead banks to become to dependent on the ECB and take away their incentives to become solvent on their own. These fears, combined with the misguided presumption that the crisis would be short-lived, led the ECB to stress that such measures were to be "temporary in nature" (ECB 2011).

This interlude of stability lasted until May 2010 when the initial liquidity crisis transitioned into a long-term sovereign debt crisis, with the Greek government officially asking for financial aid in April of that year. In the span of a year Spain, Ireland and Portugal would also request assistance in curbing their rapidly increasing budget shortages. Initially, however, the ECB was very reluctant to perform the role of "lender of last resort" to these sovereigns both because of the stipulations of the Maastricht Treaty and the fear that such behavior would conflict with its objective of price stability. During this phase of the crisis, the only new program worth mentioning is the Securities Markets Program (SMP), which allowed the ECB some limited intervention in both public and private debt securities, counterbalanced with specific operations aimed at taking liquidity out of the system again to preserve price stability.

While the situation seemed to improve up until the summer of 2011 – with the ECB even increasing interest rates for the first time in a long while, and opting not to renew SMP – the situation once again rapidly deteriorated as both crisis, financial and sovereign debt, reintensified. This "diabolic loop" finally prompted the ECB to announce in August 2012 that all their non-standard monetary policy would remain in place as long as necessary, which had a reassuring effect on the banking system which had previously demanding more liquidity as a precaution because of the uncertainty over the duration of the policies. It is at this moment in the crisis that the ECB seems to move closer into the role of lender of last resort, to the banking system at least. Subsequently, it elected to increase the duration of its LTRO's and reinstated SMP, which amounted up to 220 billion euros in sovereign bonds in February 2012. The LTRO's now amounted up to 1 trillion euro's (Rodriguez and Carrasco 2014).

The ECB, in an effort to solve the European Financial Crisis, has made use of two different policy tools. On the one hand, it attempted to prevent a credit crunch and to supply the banking sector with liquidity to honor their debt obligations through its LTRO program. Secondly, it tried to mitigate some of the banks debt by buying their debts, mainly in the form of government bonds, by implementing several rounds of CBBP. While initially hesitant to provide this assistance to banks, and even more reluctant to do so for national sovereigns that

were suffering under the strains of the prolonged crisis, the ECB gradually shifted tactics by reassuring the markets their non-standard policy measures would stay in place for as long as necessary. In the following chapter we will examine exactly how the described policy of the ECB adheres to the prescriptions given in Chapter 1 and, perhaps more importantly, where and in what ways it deviated from Bagehot's rule.

Chapter 3: Between Bagehot and the ECB

Now that we have an understanding of both the theoretical characteristics of central banking policy as well as an overview of the policy responses of the ECB itself, we can begin to analyse how the actual crisis response of the ECB lines up. The first aspect we will address is the way the ECB conducted itself as an LLR. As we have seen previously, the ECB was initially very reluctant to commit itself to this part of its duties. Only after both the financial and sovereign debt crises re-intensified in the summer of 2012 did the ECB change their stance on the issue, beginning with the announcement that the "ECB would do anything within their mandate to preserve the Euro", later followed by the switch from '[non-standard measures are temporary in nature to 'policy stance will remain accommodative for as long as needed' in April 2013. The third, in April 2014, showed the possibility of implementing unconventional instruments (the first time the word unconventional was used in an ECB conference) due to the risk of a too prolonged period of low inflation. This was reaffirmed in June 2014, when Draghi, president of the ECB, assured that the ECB has 'decided to intensify preparatory work related to outright purchases in the [Asset-Backed Security] ABS market to enhance the functioning of the monetary policy transmission mechanism. The reason why this shift is significant is because the change from temporary non-standard policy to a more longterm approach goes a long way towards reassuring the banks that they can continue to rely on the ECB to aid them through the crisis. Without such an assurance, the situation remains uncertain since banks do not know for how long they can still rely on the ECB, and will act accordingly, inhibiting the transmission of liquidity to the rest of system.

This shift in policy strategy did only occur after the crisis had been holding Europe in its grip for well over 4 years however, and this sluggish response has had some serious ramifications for the development on the financial markets since 2008. Until the moment that the ECB changed its stance that all of their non-standard monetary policy would be temporary in nature, banks had no way of knowing when and in what way the behaviour of the ECB would change at any moment, and at which point they might unexpectedly have to do without assistance from the ECB. This unpredictability led to the banks hoarding most of the funds they were receiving from the ECB instead of supplying them as loans to private citizens, which inhibited the ability of the economic system to restore itself to pre-crisis conditions. So, when we take into account the recommendation of Bagehot to "lend freely", we can see that, in the initial phase of the crisis, the ECB did not conduct itself in the way that one would

expect, in rhetoric at least. While the ECB did indeed start injecting liquidity in the system early on, their insistence that these measures would be temporary in nature negated the reassuring effect such a tactic would normally have on the system, had it overtly committed itself. So the ECB has only reluctantly played its role as a lender of last resort, but has it at least taken the recommendation of only lending to sound financial institutions to heart?

On the face of it, this seems to be the case: the aforementioned Repo system used by the ECB, which ensures loans are only given to those 1500 banks that fulfill the requirements to be eligible for ECB-assistance, combined with the already stringent membership requirements to the Eurozone should guarantee no financially unsound institutions are being bailed out. This, too, becomes slightly more problematic when applied to the situation regarding national sovereigns. While the ECB is bound to the Maastricht Treaty and should therefore not be financially supporting national governments, solvent or otherwise, it is at least indirectly committed through its CBPP buying of government bonds from private banks. Because of this, the same scrutiny of solvency applied to other financial institutions should be applied to national governments. From this perspective, the involvement of the ECB in the Greek bailout in particular becomes rather suspect. Whatever indicators one chooses to assess the situation with, it is apparent that Greece is almost a prototypical example of the kind of insolvent institution Bagehot warned against supporting. This brings us to a rather interesting conclusion. When we apply Bagehot's recommendation not to lend to insolvent firms to the case of Greece, it can be argued that the preferred strategy should have been not to bail out Greece. This is in line with Bagehot's assertion that no institution is ever too big to fail to warrant saving them at all costs, but considering Greece's position within the European Monetary Union and the implications its collapse would have for the common currency it shares with the other EMU members, it appears that this is a situation for which Bagehot did not account for.

The final component of Bagehot's recommendation, the prescription that any financial assistance from a CB should come at a high price, is the one point at which the ECB policy strayed furthest from the norm. The LTRO's – the ECB's principal liquidity injection policy tool after it shifted to its non-standard monetary policy – were intended to provide the banks of the Eurozone with capital in order to finance their operations and stave of a credit crunch. These loans, however, were lent against such low interest rates that let some pundits to describe them as "free money". While these liquidity injections were of utmost importance to stabilize the European banking system in the short run, the decision to offer this credit against such low rates goes directly against the commendation to require debtors to pay a high price

for these loans. The result is moral hazard; the cheap and freely available capital disincentivize banks from restructuring their institutional infrastructure, which makes a repeat of the same situation as occurred during the outbreak of the financial crisis likely. Secondly, there is no pressure on banks to exhaust all their other options before coming to the ECB to ask for assistance. This means that the ECB would have to inject much more liquidity into the system than it otherwise would have, putting price stability under even more pressure.

Considering the above, we can conclude that the ECB crisis response strategy differs from the recommended strategy in key ways. First of all, the ECB is, and has always been, reluctant to truly commit to its role of lender of last resort. Its slow response has allowed the crisis to escalate more than was ever necessary, had it been immediately willing to fully guarantee the financial system and its dependents. It was even more unwilling to provide lending of last resort to sovereigns. Considering the deadly embrace between national governments and the banking system, this reluctance has inhibited their ability to be a competent LLR to the banking system even further. Where it did step up and provide aid to national governments, this was done in an indirect fashion, and not always to financially sound sovereigns. The decision to support the Greek government directly contradicts the recommendations, but considering their position within a currency union, this can nevertheless have been inevitable. This would mean that such an interdependent structure as the EMU would be an exception that Bagehot had not accounted for when he postulated that no institution was ever too big to fail. While the unique situation of the sovereigns within the Euro system leaves the question whether the financial assistance to Greece was truly out of line up in the air, the decision to generate liquidity against very low rates is a clear deviation from the prescriptions. By lending against low interest rates, the ECB disincentivized the banks from bringing their operations up to standard and led to moral hazard. It is apparent that there are key ways in which the ECB policy differed from the perspectives of the scholarly world. The next and final chapter of this thesis paper will be dedicated to trying to find out why the ECB conducted itself in the way that it did. What institutional, political or legislative factors underpinned the behaviour of the ECB during the financial crisis?

Chapter 4: Explaining ECB Behaviour and its Role in the Crisis

So why has the ECB acted in the way that it did? The answer can be found in a variety of factors. As mentioned earlier, there are various legal obstacles embedded in the treaties of the European Union that inhibit the ECB's ability to act in accordance to the recommended strategy of Central Banks. There is also the matter of central banking independence, which makes it difficult for the ECB to act in way that can be seen as overly political. Because of its situation of appointed, rather than elected, leadership that must always be wary of political favouritism, its behaviour always comes under extra scrutiny. Yet it has also realized that it cannot hope to maintain price stability if it cannot prevent banking and sovereign collapse. It is therefore caught in the paradoxical situation of being limited in fulfilling its own mandate by its own mandate. While its role of LLR to the banking system is not all too controversial, it being the same to sovereigns in expressly forbidden by article 123 of the Treaty. Considering it needs to bail out sovereigns to ensure price and financial stability, it has always had to use interesting rationalisations of its behaviour to prove that it has not acted outside of its legal mandate.

Its legal mandate notwithstanding, there are a few other considerations the ECB has with the bailing out of national sovereigns. The ECB, like any other Central Bank, is founded on the principle of political independence. This is a double-edged sword. While on the one hand this independence ensures that no government of any of the euro countries exerts undue political pressure on the institutions, the ECB itself must always be wary of becoming overly political in its policy as well. The danger of any LLR operation, and especially those aimed at national governments, is putting present and future taxpayers at risk. The financial base of the ECB is funds originated indirectly – through the member states of the EMU – from the taxpayers of the member states. Because of the independence of the ECB, these taxpayers have only limited say in the activities of the ECB, and therefore there is an arguable democratic deficit when it comes to conducting LLR operations. While it can certainly and confidently be argued that foregoing its duties in maintaining financial stability would put all taxpayers under much bigger risk, it is for this reason the ECB has never been overly keen in providing explicit financial guarantees.

Unsurprisingly, in recent times the ECB has been trying to shift its LLR responsibilities away from its core policy. The European Stability Mechanism is one such example. Established in September 2007, the ESM is an institution designed with the explicit purpose of providing financial assistance to national governments. It is funded exclusively

through contributions of member states, and has a capacity of 500 billion euros. While in principle designed to relieve the responsibility of LLR of the ECB, there are a few crucial reasons why the ESM could never truly replace the ECB in this regard. First of all, there is the matter of its limited budget. Considering the total amount of funds the ECB has already dedicated to ensuring financial stability, the budget of the ESM could never hope to amount to the same scope. It can also be argued that it is not the size of the ECB bailouts, but the implicit guarantee that goes along with the ECB's capacity to provide unlimited capital that makes it an effective LLR. Since the ESM does not have this same ability, it is unlikely it can be as credible an LLR (De Grauwe, 2011). There is another reason stemming from the ESM's institutional make-up as to why it would be a less effective provider of loans to sovereigns than the ECB would be. The ESM operates under a full consensus decision-making structure, and is therefore not insured against politicization in the same way that the independent ECB is. Full consensus means that any of the national governments committed to the ESM will have a de facto veto vote over any proposed LLR operation the ESM would conduct (De Grauwe 2013, 18). Considering the significant political opposition against LLR in some member states, it is likely the ESM will for the most part not be an effective LLR institution.

The ECB, in short, is trapped on the one hand by the necessity to provide at least limited assistance to national sovereigns to fulfil its price stability mandate, and the legal constraints of its founding treaties that explicitly prohibit such assistance on the other. It has therefore always needed to justify its LLR to sovereigns by stressing such operations are necessary to fulfil its goal of maintaining price stability. While conducting LLR of any kind, it always has to be wary of overstepping its political limits, as any provision of assistance puts the taxpayers of the EMU at risk. Because the taxpayer does not have any direct influence over the proceedings of the ECB, any policy conducted by the ECB runs the risk of inviting serious debate over the democratic deficit of the institution. In this light, it is unsurprising that the ECB has tried to move its LLR responsibilities to the ESM. It is apparent, however, that the ESM is unfit to take over these duties of the ECB. Its limited budget and the likelihood of political gridlock will do nothing to fill the void of LLR within the EMU, and while the shift would certainly relieve some of the institutional headaches of the ECB, in the end it is unlikely to provide a sustainable solution to its worries. Another noted deviation of policy of the ECB has been the low interest rates associated with its loans. While this seems to go directly against Bagehot's prescription, there is an important development currently plaguing the EMU that Bagehot's theory seemingly did not account for. Over the last few years, the ECB has not been worried quite as much by inflation as it has been by the looming spectre of deflation. Deflation is even more damaging to a recovering economy than periods of high inflation, since it leads consumers and businesses to postpone their purchases, prolonging economic depression. It is also very harmful because, according to Bernoth *et al* (2014), "it limits the ability of monetary policy to ensure price stability using traditional and well-proven monetary instruments"(16). This is because the conventional policy tool to combat deflation is the lowering of interest rates, which apart from inspiring moral hazard also leaves the ECB without standard monetary policy tools when interest rates reach zero. Deflation or even very low rates of inflation make reducing the real debt burden that much harder, so it is seen to be imperative to prevent prolonged low inflation or deflation at all costs. This traps the ECB in a situation where they cannot apply the prescribed monetary policy for fear of exacerbating the problems in the euro-zone even further. Considering the very real threat of deflation, this seems inevitable, but this does leave the ECB with the equally real problem of moral hazard in the long run.

Conclusion

What has been the role of the European Central Bank during the European Financial Crisis? Observing the crisis since its start in 2008, we can see that the ECB has had the most difficulty with its role as the Lender of Last Resort. While it picked up this role relatively quickly with regards to the banking system, it did so in a way that is counterintuitive when one considers the implications of lending on such a large scale against such low rates. The provision of cheap credit, while being very effective in staving of a credit crunch and liquidity problems on the financial markets, has the adverse effect of encouraging moral hazard in the banking system. When the banks have easy access to cheap credit, there is no incentive to restructure their financial operations to the point where they can prevent a repeat of the exact same situation that led to the crisis in the first place. Furthermore, since there is no incentive for banks to repay their debts as quickly as possible, the ECB has no credible strategy for allowing this excess capital to drain from the system, thereby compromising its policy goal of maintaining price stability. It is apparent that, in order to competently fulfil its duties as keeper of price stability, the ECB must re-examine its position with regard to Lending of Last Resort. Since it cannot hope to maintain price levels without also maintaining stability in the banking system - as the financial crisis has demonstrated - it is high time for the duty of financial stability to become an explicit goal of the ECB.

The Bank performs even more poorly when it comes providing LLR to national sovereigns. Here, once again, its own legal basis prevents it from playing this role, and this complicates its ability to fulfill its mandate. While the bank was initially very reluctant to provide assistance to national sovereigns at all, it slowly adopted a strategy to at least prevent the collapse of national sovereigns, albeit in an indirect way. Because of the stipulation of the EU Treaty that the ECB cannot provide assistance to national sovereigns, it always had to move very carefully, and always had to justify this aspect of its policy by presenting it as fundamental to its price stability goal. There is no doubt, however, that the ECB did at least to some extent perform this role of LLR to national sovereigns. While this is perhaps inevitable because of the extensive interdependency between the banks and the sovereign, there remain some interesting questions to be answered with regard to saving financially unsound national sovereigns, in this particular case Greece.

The fate of the Greece is fascinating because it both objectively financially unsound and crucial to the health of the common currency area as a whole, a situation that Bagehot had not foreseen when he postulated that Central Banks should only lend to healthy financial

institutions. The applicability of the adage "no institution is ever too big to fail" within a system of multiple countries with a single currency should prove an interesting avenue for further research. The implications the situation of national sovereigns has for the future ECB policy are twofold. First, if providing guarantees for national sovereigns is crucial to ensuring financial (and therefore price-) stability within the European Monetary Union, he ECB must be explicit in this objective. If it is not forthright about its objective of providing LLR to national governments, this creates unnecessary insecurities that can only serve to exacerbate future crises. Second, if it does choose to become an explicit LLR to sovereigns, it needs to work out how to be an effective LLR in line with the prescriptions of Bagehot and Thornton, especially in the way it conducts itself with regard to financially unhealthy sovereigns. The greatest obstacle here lies, as with all lending of last resort, with preventing moral hazard. If allowing a national sovereign to collapse can be lethal to the health of the entire EMU, encouraging irresponsibility by offering unlimited, unconditional guarantees is even more dangerous.

At present, however, it is unlikely that the ECB will be headed in this direction. The treaties on which it is based are difficult to amend, and the political willpower to increase the mandate of the bank are lacking. Instead, it seems the ECB is attempting to move its LLR responsibilities into other mechanisms, particularly the European Stability Mechanism. While divorcing its price stability duties from the imperative of ensuring financial stability as well relieve some of the biggest pressure of the ECB, it is unlikely that the ESM is up to the task. For starters, its financial capacity is for too low, and at any rate the fact that it does not have the ability to generate theoretically unlimited amounts of liquidity like the ECB has means it cannot give an as credible guarantee to the markets. Furthermore, since it is an organization that operates with a full consensus decision-making structure between all members, it runs the serious risk of having all of its policy becoming politicized, something that the principle independence of the ECB was supposed to prevent. It therefore appears that, if the ECB wants to prevent the same type of crisis from repeating, it must seriously consider stepping up to its role of Lender of Last Resort.

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