Introduction
At present the future of the world economy looks bleak. The future of Europe looks particularly troubling, with no end in sight for the sovereign-debt crisis that has engulfed the region since late 2009. Commentators have largely criticized European leaders for their failure to act decisively to stem the crisis. Much criticism has also been levelled at the European Central Bank (ECB) with many economists condemning its rigid adherence to the sole mandate of price stability and its refusal to act as a lender of last resort (LLR) to ailing sovereigns. This paper aims to address whether there is a role for the ECB in this regard. In the first section I shall analyse the initial conceptualisations of the LLR function, as put forward by Henry Thornton (1760-1815) and Walter Bagehot (1826-1877). Subsequently, I shall assess the adherence of the ECB to the classical view when acting as a LLR to the European banking sector. Finally, I shall argue that the ECB should act as a LLR to sovereigns and determine whether the advice of Thornton and Bagehot is useful in this regard.

Thornton & Bagehot: The Classical View
The first known conceptualisation of the LLR can be found in Henry Thorn-
ton’s An Inquiry into the Nature and Effects of the Paper Credit of Great Britain, first published in 1802. In Paper Credit, Thornton addresses issues pertaining to monetary economics and does much to counter the orthodox thought of earlier writers. Notably he makes continual reference to the writings of Adam Smith. Murphy notes that Thornton had three main problems with Smith’s monetary economics: his limited definition of the money supply, his real bill of exchange doctrine and his neglect of the role of the velocity of circulation (2008). However, despite Thornton’s clear break with the classical tradition, it is impossible to accurately characterise his views into one school of thought. This is explained by the contrasting arguments presented in Paper Credit. Murphy highlights the apparent transformation from the ‘anti-deflationist’ arguments of Thornton to those of the ‘hard currency man’ (2003). Despite this seeming inconsistency, Paper Credit is a landmark work and contributes much towards monetary thought.

Thornton’s most important contribution is his extensive analysis of the role of the Central Bank. He distinguishes between an ‘external drain’ of specie to foreign nations, and an ‘internal drain’ whereby panic-stricken domestic residents would increase their gold holdings through the conversion of paper currency into specie (Humphrey, 1975). In the latter case, Thornton warns against the effects of deflationary policies through a reduction of the note issue, as recommended by Adam Smith:

‘...however just may be the principle of Dr. Smith when properly limited and explained, the reduction of the quantity of Bank of England paper is by no means a measure which ought to be resorted to on the occasion of every demand upon the bank for guineas arising from the high price of bullion, and that such reduction may even aggravate that sort of rise which is caused by an alarm in the country.’

(1802: 104)

Furthermore, he criticises the Bank of England for adopting the recommendations of Smith:

‘If there has been any fault in the conduct of the Bank of England, the fault, as I conceive, has rather been, [...] on the side of too much restricting its notes in the late seasons of alarm, than on that of too much enlarging them. In doing this, it has happened to act (though in part) according to what seems likely to have been the
In arguing against a deflationary restriction of paper credit, Thornton develops the concepts of price stickiness (Humphrey, 1989), liquidity preference (Hayek, 1939) and the marginal efficiency of capital (Murphy, 2008), preceding Keynes by over a century. Subsequently, he recommends an expansion of the note issue to protect the domestic economy from a drastic fall in the money supply (Humphrey, 1975).

Walter Bagehot addressed the topic of the LLR in his seminal work, Lombard Street. To say that Bagehot further developed thinking on the subject would be untrue; throughout Lombard Street, much of Thornton's contributions are simply 'revised and restated' (Humphrey, 1989: 12). The main arguments made by Bagehot and Thornton are summarised as the 'classical view', which proposes that the LLR should lend freely to solvent institutions with good collateral, or in Bagehot's words, 'lend to all that bring good securities, quickly, freely, and readily' (1873: 173). The classical view further states that the Central Bank should make clear its willingness to lend (Bordo, 1989) and that '... these loans should only be made at a very high rate of interest' (Bagehot, 1873: 197). Some authors, such as Humphrey (1975; 1989), would also point out that Bagehot implied that lending should occur at penalty rates. However, Goodhart successfully debunks this notion, stating that while Bagehot implies raising lending rates during a crisis, he does not suggest raising these rates above new post-crisis market interest rates (1999).

Despite remarkable coherence between the authors' understanding of the role and position of the Bank of England, their views on the desirability of such a position diverge markedly. Laidler notes that Bagehot did not envisage the position held by the Bank of England as an optimum solution but rather as one generated by an 'historical accident' (2002). This stands in opposition to Thornton, who believed in the inherent desirability of the pivotal role of the Bank of England (ibid, 2002). It is also important to highlight that Bagehot's analysis was driven by his concern for protecting gold convertibility (ibid, 2002). In stark contrast, Thornton emphasised the importance of preserving the quantity, and hence the purchasing power, of the money stock (Humphrey, 1989).

**Developments**

Despite acting as a LLR to the financial system in 1847, 1857 (O'Brien, 2003) and again during the Overend Gurney Crisis in 1866 (Bordo, 1989), widespread acceptance of the bank's LLR function did not emerge until the mid
Having accepted its role as a LLR, the Bank of England was able to prevent financial crises developing into deep recessions in 1878, 1890 and 1914 (Bordo, 1989). Most other nations had also developed LLR capacities at the end of the nineteenth century (Ibid, 1989), although development of an effective LLR in the United States did not occur until much later. The US Federal Reserve was not formed until 1914 and proved inexperienced and unsure of its role when faced with its first banking crisis in the wake of the 1929 stock market crash. The Federal Reserve’s failure to support the domestic banking sector during crises in 1930, 1931 and 1933 led to the failure of ‘more than one-fifth of the commercial banks in the United States holding nearly one-tenth of the volume of deposits at the beginning of the contraction...’ (Friedman and Schwartz, 1966, p. 299). The creation of federal deposit insurance in 1934 restored calm to the banking sector and assured the public of the safety of bank deposits. However, according to Schwartz, deposit insurance is ‘not essential to prevent panics, given a responsible lender of last resort’ (1987); deposit insurance therefore was required only to account for the Federal Reserve’s inaptitude. However, the Fed has gradually accepted its LLR role and since 1970 has erred on the side of excessive action (Bordo, 1989).

**The ECB and the Banking Sector**

In 2008, following the collapse of Lehman Brothers in the United States, the world economy was faced with a deep global financial crisis, prompting a global recession. Central Banks, including the ECB, acted quickly, providing liquidity support and engaging in open market operations (OMO). The ECB slashed the main refinancing rate by 325 basis points between October 2008 and May 2009 (Trichet, 2010). Further measures taken are well outlined by Trichet (2010), notable among these is the unlimited liquidity lending to euro area banks, although these provisions have been phased out since December 2009 (2010). In December 2011 the ECB provided further support to the European banking sector through the issue of just over 500 billion Euros in three year loans.

Generally, the ECB’s actions vis-a-vis the European banking sector are consistent with the classical view of the LLR; the bank has engaged both in OMO and has provided loans directly to the banking sector with the requirement of good collateral to separate the illiquid institutions from the insolvent. However, the one percent interest rate charged on loans in December 2011 hardly reflects ‘at a penalty’. Despite this action, governments still advanced large bailout packages to ailing banks. It is likely that insolvency prompted these institutions to seek domestic government support,
rather than risk refusal by the ECB. These large bailouts served to worsen the fiscal position of European nations, most notably Ireland, while other nations such as Greece proved fiscally irresponsible prior to the financial crisis. In late 2009, concerns over euro area sovereign debt reached new heights as market yields on government bonds issued by the PIGS (Portugal, Ireland, Greece, Spain) jumped substantially. The crisis reached a new phase following market speculation over the state of the Italian economy.

The ECB and the Sovereign Debt Crisis
Throughout the sovereign debt crisis the ECB has consistently stated its reluctance to provide support through intervention in government bond markets. While the ECB did engage in bond purchases in late 2011, these actions were incredibly limited and were made alongside the self-defeating declaration that such stabilization measures would have only a temporary effect (Delong, 2011). The resignation of Jürgen Stark in protest also sent a signal to the market of the fierce resistance to such moves, as did the bank’s ‘sterilization’ of bond purchases, reflecting a reluctance to forgo low inflation. The ECB did encourage the purchase of government bonds using the funds advanced to banks in December 2011, achieving some success in lowering bond yields. However, this indirect action signalled to markets the extent of the ECB’s reluctance to get directly involved. Resulting from the ECB’s inaction the EU was forced to create the European Financial Stability Facility (EFSF) and the European Stability Mechanism (ESM) to provide LLR support to struggling sovereigns. Along with the IMF, these institutions provided bailouts to Greece, Ireland and Portugal with the ECB acting in an oversight role through the troika arrangements.

De Grauwe (2011) notes that a sovereign debt crisis in a monetary union has many similarities with a domestic banking crisis; both lead to fears of contagion and speculation on illiquid but otherwise solvent institutions. This can lead to the self-fulfilling collapse of banks through runs, or the bankruptcy of nations through large increases in borrowing costs. The role of a LLR in the sovereign debt market is much the same as that of a LLR in the banking sector and as such, the central bank who already acts in this capacity is the main candidate for support to sovereigns. Consequentially an ECB bond purchasing program would lower the market interest rate on bonds, lowering borrowing costs for sovereigns and stemming the risk of a self-fulfilling crisis. The depth and speed of austerity measures could be reduced as borrowing costs are lowered and nations no longer need to convince the market of their solvency. Furthermore, through the prevention of sovereign default the ECB would serve to protect the European Banking sec-
tor, which is greatly exposed to euro area sovereign debt. Bond purchasing would also prevent the need for the ‘spectacle’ of state bailouts which harm market expectations. It is also worth noting that by simply announcing its willingness to act as a LLR the ECB could do much to soothe market fears.

The classical doctrine would suggest that the ECB should lend freely, at a high rate and to only solvent institutions with good collateral. Thornton and Bagehot both suggest that a LLR is not required to prevent crisis but should act quickly to prevent contagion. Unfortunately the ECB has acted slowly and as such the depth of action required at present is much greater than would have been required in late 2009. The ECB also faces a number of problems in enacting these principles. Firstly, lending freely to sovereigns could generate inflation within the euro area although it could be argued that the bleak growth prospects of Europe have assured low inflation for years to come. Defining good collateral also presents a problem. Growth prospects could be used to measure future ability to repay, although estimates are prone to error and bias. Distinguishing between solvent and insolvent institutions presents a further issue, and one in which there is little agreement between economists. However, few would argue that the Greek position is tenable. The introduction of high or penalty rates to determine between those solvent and insolvent as suggested by De Grauwe (2011) is also largely impractical as the raison d’être of ECB intervention is to lower the interest charged on bonds and hence borrowing costs. This also prompts a further question; should the ECB refuse to lend to insolvent institutions? In answering this question it is important to note that refusing to lend would not only allow the sovereign to default, but might in fact bring about default through a complete collapse of market confidence.

Conclusion
There are of course a number of valid reasons for the ECB’s refusal to act as a LLR to sovereign nations. The bank may be concerned about moral hazard through providing a safety net for imprudent sovereigns. The ECB may also fear a loss of credibility through subordinating its inflation goal. The legality of such action is also under question. However, the consequence of inaction is to further risk the stability of the European financial system and the European Monetary System itself. The remarkable similarity, and indeed interconnectedness between banking and sovereign debt crises in a monetary union means that the position of the ECB in acting as a LLR to both banks and governments is a ‘natural’ one. In performing these roles the ECB would do well to remember the wisdom of Thornton and Bagehot, in particular the ECB should
take swift decisive action to calm markets. Furthermore, the ECB should not underestimate the benefits to be gained from announcing their support; the action required of them might be much less than they would imagine.
References


