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**Capital, liquidity standards and macro prudential policy tools in financial supervision: addressing sovereign debt problems**

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## ABSTRACT

During the recent Financial Crisis, as well as the ongoing European Sovereign Debt Crisis, several governments had/have had to raise their debt levels in order to stabilize their economies. The principal problem attributed to sovereign debts, which is linked to their characteristics, is the possibility of defaults occurring in relation to these – since they are usually accompanied without collaterals. The possibilities of such defaults occurring are further increased where bailouts are granted in relation to these debts. Increased doubts in relation to the likelihood of larger sovereigns “rolling over maturing debt on their own”, as well as the consequential occurrence of “very high, economically penalizing, interest rates”, is considered to be the present reality.

This paper aims to illustrate why distressed countries, once granted bail-outs, should be given full assurance (by grantors of the bail-outs) that continued assistance will be provided in the form of accompanying aids to assist in completing repayments relating to such bailouts (through the extension of repayment periods or reduced interest rates) – rather than aggravating their position (hence facilitating the risk of defaults).

As well as a consideration of improvements which have been introduced through Basel III in respect of prudential supervisory tools (supervisory tools such as capital, liquidity requirements, and macro prudential policy tools), and an analysis of recent efforts which have been undertaken by the Basel Committee to address information gaps in derivative markets (a source of huge losses to many major banks), the paper also explores how the new Basel liquidity standards (that is, the Liquid Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR), could be effectively implemented in mitigating sovereign debt crises. Ultimately, the paper will seek to demonstrate that additional leverage ratios which are to be introduced by the Basel Committee, will play a very crucial role if the new liquidity standards are to achieve their desired effects and stated objectives.

**Key Words:** European Sovereign Debt Crisis; Basel III; Dodd Frank Act; Capital standards; Liquidity Standards; macro prudential policy tools; Over-the-Counter (OTC) derivatives; Credit-Default-Swaps (CDS); markets; disclosure; bank; regulation; leverage ratios

# Capital, Liquidity Standards and Macro Prudential Policy Tools in Financial Supervision: Addressing Sovereign Debt Problems

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## A. Introduction

Even though it is argued that the most recent Financial Crisis was a capital crisis - not a liquidity crisis, events such as the failure of Northern Rock, as well as problems encountered by major banks which were considered to have been complying with Basel Capital requirements, are plausible indicators of the fact that the recent Financial Crisis was triggered by pro cyclical, as well as liquidity related issues such as maturity transformations. The focus accorded by the Basel Committee on Banking Supervision to capital requirements - as opposed to liquidity standards, also provided further justification for evidence which corroborates a lack of sufficient focus on matters and factors which contribute in triggering a liquidity, and ultimately, banking crises.

Whilst it is widely agreed and not disputed that capital and liquidity requirements both contributed to the most recent Financial Crisis, the extent to which Basel III addresses major/fundamental questions arising from the Crisis, provides further grounds for further debates. This paper considers those fundamental issues which have arisen in light of the recent Crisis against the background of efforts which have been made by the Basel Committee to consolidate capital, liquidity standards – as well as macro prudential policy tools. As well as highlighting the increased focus accorded by the Basel Committee to the macro prudential level, the paper will consider macro prudential policies which have been introduced to address system wide risks.

The first four sections of this paper (subsequent to the introductory section) will consider improvements which have been introduced through Basel III in respect of prudential supervisory tools. To facilitate this aim, these sections will consider capital, liquidity and macro prudential supervisory tools which currently exist or are about to be introduced. In emphasizing the need for greater focus on macro prudential policies – which ultimately facilitate a more system-wide market based approach to regulation, sections two to five illustrate how Basel III's more macro prudential focus should help facilitate the monitoring of vital and useful information such as market wide data on asset prices and liquidity. The need for such monitoring being of vital importance since derivative markets, (and the Over-the-Counter (O-T-C) derivatives market in particular – being the largest<sup>2</sup> market for derivatives), are largely unregulated with respect to the

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<sup>2</sup> The “OTC derivative market is the largest market for derivatives. According to the Bank for International Settlements, the total outstanding notional amount is U S \$684 trillion (as of June 2008). Of this notional amount, 67 % comprise interest rate contracts; 8 % credit default swaps (CDS); 9 % foreign exchange contracts; 2 % commodity contracts; 1 % equity contracts; and 12 % other. Because OTC derivatives are not traded on an exchange, there is no central counter party and they are therefore subject to counter party risk – like an ordinary

disclosure of information between parties.

Hence the sixth section of the paper will consider the importance of information gaps – particularly within OTC markets, as well as steps taken by the Basel Committee to address these. The second half of this paper (commencing with section six) seeks to address two important aspects, namely:

- i) The need to introduce measures which are aimed at facilitating greater disclosure in respect of complex instruments which banks are exposed to during the course of their daily transactions. One of such complex instruments being the OTC derivatives markets – whereby many major banks are exposed to huge losses.

A second means whereby many major banks could be exposed to huge losses is attributed to sovereign debt exposures. “Many European banks are thought to have large holdings of sovereign debt from the “peripheral” countries that have not been marked-to-market, and thus represent sizeable potential losses for the banks when the sovereign debt is ultimately restructured.”<sup>3</sup>

Sovereign debt exposures, the effects of bail outs resulting from sovereign debts, ways whereby the new Basel liquidity standards could help address sovereign debt problems (as well as other measures which have been proposed), will constitute the focus of discussion in relation to the remaining sections of this paper.

- ii) The sovereign debt problem leads us to the second important aspect, the importance of timely implementation of additional leverage ratios which have recently been introduced by the Basel Committee. If the two new liquidity standards, the Liquidity Coverage Ratio (LCR), and the Net Stable Funding Ratio (NSFR), are introduced without coupling these to the additional new leverage ratios, this could lead to a concentration of banks’ funds – which could subsequently be vulnerable to sovereign exposures.

Basel III is considered to be “fundamentally different” from Basel I and II as a result of its combination of “micro and macro prudential reforms to address both institution and system level risks.”<sup>4</sup>

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contract (since each counterparty relies on the other to perform).” See Financial Stability Board, “Implementing OTC Derivatives Market Reforms” 25<sup>th</sup> October 2010

<[http://www.financialstabilityboard.org/publications/r\\_101025.pdf](http://www.financialstabilityboard.org/publications/r_101025.pdf)> and

also

<[http://en.wikipedia.org/wiki/Derivative\\_\(finance\)#OTC\\_and\\_exchange\\_traded](http://en.wikipedia.org/wiki/Derivative_(finance)#OTC_and_exchange_traded)>

3 “The EC B and the European central banks”, it is further argued, “need to identify those banks that are impaired by excessive sovereign holdings and assist them in recapitalization – however, also pushing the larger, stronger banks to accept exchange offers in the interest of bank transparency and restructuring as well as in resolving the sovereign debt problem.” See N Economides and RC Smith, “Trichet Bonds To Resolve the European Sovereign Debt Problem” January 2011 at pages 2 and 3 <<http://www.ssrn.com/abstract=1836743>>

4 With respect to **micro prudential aspects**, Basel III reforms indicate i) “Significant increase in risk coverage – with focus on areas that were most problematic during the Crisis (for example, trading book exposures, counterparty credit risk, and securitization activities); ii) fundamental tightening of the definition of capital – as well as a strong focus on common equity (introduction of requirements that all capital instruments must absorb losses at the point of non-viability – which was not the case during the most recent Financial Crisis); iii) Introduction of a

### **Basel III = Enhanced Basel II + M acro prudential Outlay<sup>5</sup>**

**Enhanced Basel II** = M icro prudential Framework (aimed at “increasing quantity as well as improving quality of capital, adequate capital charges needed in the trading book, enhancing risk management and disclosure, introducing a leverage ratio to supplement risk weighted measures, addressing counter party risk posed by Over-the Counter (OTC) derivatives.”)

#### **M acro Prudential Outlay:**

This aspect addresses:

- i)           ”stability over time” (pro cyclical) through:
  - Counter cyclical capital charges and forward looking provisioning
  - Capital conservation rules for stronger capital buffers
  
- ii) As well as “stability at each point in time” (system wide approach):
  - Systemic capital surcharge for systemically important financial institutions
  - Identify inter linkages and common exposures among all financial institutions
  - Systemic oversight of OTC derivatives (CCP infrastructure)

Weaknesses in Basel rules will be considered from the perspective attributed by such rules to capital and liquidity requirements.

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leverage ratio which should serve as a backstop to the risk based framework; iv) the introduction of global liquidity standards to address short-term and long term liquidity mismatches; and v) Enhancements to Pillar 2’s supervisory review process and Pillar 3’s market discipline – particularly for trading and securitization activities.” S Walter, “Basel III: Stronger Banks and a More Resilient Financial System” <http://www.bis.org/speeches/sp110406.pdf> at page 3 of 12

5 See H Hannoun, „Towards a Global Financial Stability Framework” Bank for International Settlements Publications page 9 of 26  
<http://www.bis.org/speeches/sp100303.pdf>

## B. Capital Requirements

As highlighted in several papers,<sup>6</sup> Basel II's internal credit risk models<sup>7</sup> were not only considered to be:

- Unduly risk sensitive, but also tended to generate pro cyclical effects. This was illustrated during the Northern Rock Crisis.<sup>8</sup> It has also been stated<sup>9</sup> that Basel rules focused on one type of risk – the risk that a bank would make too many bad loans and lose so much money on those loans (such that its capital was wiped out). Whilst these observations reflect the magnitude of attention dedicated to capital requirements, it also highlights problems attributed to measurements in relation to such capital requirements.
- They also generated pro cyclical effects. Pro cyclicity is a fundamental issue arising from the implementation of Basel II capital requirements.

Another vital distinction between Basel II and Basel III is evident from the fact that under Basel III, systemically important banks will be required to have loss absorbing capacity beyond the

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6 For example, see M Ojo, “Basel III and Responding to the Recent Financial Crisis: Progress made by the Basel Committee in relation to the Need for Increased Bank Capital and Increased Quality of Loss Absorbing Capital” <http://ssrn.com/abstract=1680886> at page 3 of 15. “The introduction of Basel II resulted in changes being made to the 1988 Basel Capital Accord to provide for a choice of three broad approaches to credit risk. This was introduced into Basel II in view of the realization that the optimal balance may differ significantly across banks. The increased focus on risk (and particularly credit risk), resulted from growing realization of the importance of risk within the financial sector. The range of approaches to credit risk – as introduced under Basel II, and which also exists for market risk, consists of the Standardised approach (which is the simplest of the three broad approaches), the internal ratings based (IRB) foundational and advanced approaches.” See Basel Committee on Banking Supervision, “Consultative Document, Standard Approach to Credit Risk, Supporting Document to the New Basel Accord, January 2001 at page 1 <http://www.bis.org/publ/bcbsca04.pdf> and Basel Committee on Banking Supervision, “Consultative Document, The Internal Ratings Based Approach Supporting Document to the New Basel Capital Accord” January 2001 Bank for International Settlements publications <http://www.bis.org/publ/bcbsca05.pdf>

7 Basel II's internal credit risk models generated pro cyclical effects – given the fact that such models were overly sensitive in their implementation for the calculation of regulatory capital (their implementation to facilitate “the derivation of fundamental inputs for formulas which will determine the level of capital which large banks must retain”).

8 “One of the underlying features of the recent Crisis was the build-up of excessive on and off-balance sheet leverage in the banking system. In many cases, banks built up excessive leverage while still showing strong risk based capital ratios. During the most severe part of the Crisis, the banking sector was forced by the market to reduce its leverage in a manner that amplified downward pressure on asset prices, further exacerbating the positive feedback loop between losses, declines in bank capital, and contraction in credit availability.” See Basel Committee on Banking Supervision, “Basel III: A Global Regulatory Framework For More Resilient Banks and Banking Systems” December 2010 at page 68 – 69 of 77 <http://www.bis.org/publ/bcbs189.pdf>

9 T Congdon, “Northern Rock Shows Up Mess of Basel Rules” January 2008 <<http://www.telegraph.co.uk/finance/markets/2783500/Northern-Rock-shows-up-mess-of-Basel-rules.html>> (last visited 18 May 2012)

standards approved and announced on the 12<sup>th</sup> September 2010.<sup>10</sup> Furthermore, the Basel Committee and the Financial Stability Board (FSB) are “developing a well integrated approach to systemically important financial institutions which could include a combination of capital surcharges, contingent capital and bail in debt.”<sup>11</sup>

Total Regulatory Capital for systemically important banks is considered to be:

$$[\text{Tier One Capital Ratio}] + [\text{Capital Conservation Buffer}] + [\text{Counter Cyclical Capital Buffer}] + [\text{Capital for Systemically Important Banks}]^{12}$$

### C. Liquidity Requirements

In highlighting why the relatively low focus attached to liquidity requirements constituted another element of those weaknesses attributed to Basel rules, the importance of liquidity and the role of banks in maturity transformations (ultimately triggering banking crises), has been demonstrated in several respects.<sup>13</sup> The Liquid Coverage Ratio (LCR) which imposes a requirement that banks maintain an adequate level of “unencumbered, high-quality liquid assets that can be converted to cash to meet its liquidity needs for a 30 calendar day time horizon under severe liquidity stress conditions specified by supervisors”<sup>14</sup> and the Net Stable Funding Ratio (NSFR) Standard which is designed to “promote longer-term funding of the assets and activities of banking organizations by establishing a minimum acceptable amount of stable funding based on the liquidity of an institution’s assets and activities over a one-year horizon”,<sup>15</sup> it is argued, should facilitate a diversification of liquid assets – hence discouraging a situation where they could be accumulated and susceptible to exposures such as those relating to sovereign debts. It will however, be highlighted in subsequent sections of the paper, that the two new Basel liquidity standards, will probably not achieve their desired objectives where such standards are not coupled with leverage ratios.

10 See Basel Committee for Banking Supervision, “Groups of Governors and Heads of Supervision Announce Higher Global Minimum Capital Standards” 12 September 2010 at page 2 of 7 <<http://www.bis.org/press/p100912.pdf?noframes=1>>

11 ibid

12 For further information on capital conservation buffer and counter cyclical capital buffer, see section D, “Basel III’s Efforts to address Capital and Liquidity Requirements”. See also Basel III Compliance Professionals Association (BiiiCPA), “The Basel III Accord: Capital for Systemically Important Banks Only” <<http://www.basel-iii-accord.com>>

13 For example, see Basel Committee on Banking Supervision, “Principles for Sound Liquidity Risk Management and Supervision” September 2008 at page 1 <<http://www.bis.org/publ/bcbs144.htm>>; As well as (banks) being regarded as highly leveraged institutions which are considered to be “at the centre of the credit intermediation process”, functions related to credit and maturity transformation are considered to be “vulnerable to liquidity runs and loss of confidence.” See also S Walter, “Basel III: Stronger Banks and a More Resilient Financial System” <<http://www.bis.org/speeches/sp110406.pdf>> at page 1 of 12

14 See Basel Committee for Banking Supervision, “Consultative Document, International Framework for Liquidity Risk Measurement, Standards and Monitoring” December 2009 at page 3 (11 of 44)

<<http://www.bis.org/publ/bcbs165.pdf>>

15 ibid

#### D. Basel III's Efforts to address Capital and Liquidity Requirements

The incorporation of macro prudential elements into Basel III – in the form of capital buffers, the new liquidity standards, and leverage ratios, can be regarded as efforts aimed at addressing capital and liquidity requirements.

Capital Buffers: Such buffers are intended solely (as well as not exclusively) to address problems attributed to pro cyclicality. They consist of:

—————Counter cyclical capital buffers<sup>16</sup>

- Capital conservation buffers

Counter cyclical capital buffers and capital conservation buffers constitute macro prudential tools in the “time dimension”<sup>17</sup> – such tools focusing on the need to mitigate pro-cyclical effects.

Whilst counter cyclical capital buffers and capital conservation buffers are synonymous with capital requirements, equivalent “buffers” which serve to address liquidity imbalances comprise the two new liquidity standards, the Liquid Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). Further, these new liquidity standards and the additional minimum leverage ratio, it is argued, “could limit the build-up of financial imbalances during the expansion phase of the financial cycle. In particular, the additional leverage ratio provides an important back stop in cases where excessive optimistic point-in-time risk measures tend to shrink risk weighted assets and required cushions.”<sup>18</sup>

**Leverage Ratios:** The minimum leverage ratio and the new liquidity standards are considered<sup>19</sup> to have the potential to limit the build-up of financial imbalances during the expansion phase of the financial cycle. Leverage ratios such as debt ratios (ratio of debt to assets); debt-equity ratios, usually provide good indication of an entity's means of financing. Such ratios reflect whether such an entity is able to meet its obligations as it falls due. Hence they also reflect how “liquid” a firm is. If the quality of debts issued by an entity is poor, then the possibility of redeeming such may result in a situation where the company is left in a vulnerable position (owing to level of losses incurred) – since it finds it difficult to meet its obligations as they fall due. The impact of short term borrowing on maturity and liquidity has been considered in various

16 With counter cyclical capital buffers, “the build-up of the buffer is encouraged through restrictions on capital distributions. Authorities would then release the buffer based on signs of strains, such as aggregate losses or tighter credit terms. In both cases, the exercise of discretion still applies.” See Bank for International Settlements, “Macro prudential Policy Tools and Frameworks: Update to G20 Finance Ministers and Central Bank Governors.” at page 5 <<http://www.bis.org/publ/othp13.pdf>>

17 The first of two dimensions on which macro prudential policies aim to address system wide risk. The second dimension is referred to as “the cross sectional dimension”. The “time-dimension” is defined as “the evolution of system-wide risk over time” whilst the “cross sectional dimension” is defined as “the distribution of risk in the financial system – at a given point in time”. See *ibid* at page 2

18 *Ibid* at page 6

19 See S Walter, “Basel III: Stronger Banks and a More Resilient Financial System” <http://www.bis.org/speeches/sp110406.pdf> at page 6 of

literature on the topic.<sup>20</sup>

Deleveraging is a process whereby an undertaking or financial intermediary attempts to reduce its balance sheet, for example, by disposing of its assets. Recent Basel III reforms will play a huge role in the level of deleveraging (by banks) - which is presently occurring (and which is expected to take place in the subsequent months).

### **E. Macro prudential policies**

A macro prudential policy is one which “uses primarily prudential tools to limit systemic or system wide financial risk – thereby limiting the incidence of disruptions in the provision of key financial services that can have serious consequences for the real economy by:

- Dampening the build-up of financial imbalances and building defences which contain the speed and sharpness of subsequent downswings and their effects on the economy;
- Identifying and addressing common exposures, risk concentrations, linkages and interdependencies that are sources of contagion and spill over risks that may jeopardize the functioning of the system as a whole.<sup>21</sup>

Pro cyclicality (as well as its impact), is usually attributed to the aggregational build-up of system wide risks over time. Policies which exacerbate cyclical tendencies (for example Basel II’s capital requirements)/cyclical effects which are exacerbated during peaks and booms and which usually demonstrate the impact of aggregational effects of cyclical phases, are referred to as being pro cyclical.<sup>22</sup>

### **F. Information gaps in Over-the Counter (OTC) derivative markets – ongoing efforts by the Basel Committee to address these**

In view of the inter dependencies between systemic, liquidity risks, moral hazard, transparency, information asymmetries and disclosure, ongoing efforts by the Committee to address information gaps in OTC derivative markets cannot be regarded as surprising. Efforts being undertaken by the Basel Committee, as well as other bodies such as the Financial Stability Board, in focusing on a more system-wide based regulatory process involve the implementation

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20 “Deleveraging also puts **additional** downward pressure on financial markets.” Furthermore, consequences of short term borrowing include “serious liquidity problems especially in the case of financial distress: the funding of long term investments through short term debt widens maturity and liquidity gaps, making banks more vulnerable to runs.” See N Papanikolaou and C Wolff, “Leverage and Risk in US Commercial Banking in the Light of the Recent Financial Crisis.” March 2011 Draft

21 See Bank for International Settlements, „Macro prudential Policy Tools and Frameworks: Update to G20 Finance Ministers and Central Bank Governors” February 2011 at page 2 <<http://www.bis.org/publ/othp13.pdf>>

22 „Leverage ratios serve a macro prudential response – in respect of the cyclical movement of leverage at the system wide level. Leverage which tends to build up prior to crisis periods, is subsequently unwound when a crisis occurs. This cyclical aspect exacerbates both the upswing phase and the downturn. In addition, what could appear to be very low risk assets at the institutional level, can ultimately create incentives for the build-up of risks at the broader system level.”

of “time dimension” and “cross sectional dimension” macro prudential policies, as well as plans aimed at facilitating these policies. Such a macro prudential approach will consequently result in greater extension of regulation to the securities markets. Further, it will help facilitate the monitoring of vital and useful information such as market wide asset prices and liquidity. Substantial work is currently taking place to address important data gaps.<sup>23</sup>

Within the overall programme, priorities involve the provision of information on aspects where the absence of good information has proved costly, and in particular:

- i) The inter linkages between large, globally systemically important institutions
- ii) Emerging concentrations of risk in terms of both exposures and funding dependencies to certain institutions, countries and financial sectors;
- iii) The transfer and ultimate holding of risk
- iv) System wide leverage and maturity mismatches

### **G. Sovereign Debts and Moral Hazard Attributed to Sovereign Debt Bailouts**

During the recent Financial Crisis (as well as the 2010 and ongoing European Sovereign Debt Crisis), several governments have had to raise their debt levels in order to stabilize their economies. The principal problem attributed to sovereign debts, which is linked to their characteristics,<sup>24</sup> is the possibility of defaults occurring. Increased doubts in relation to the likelihood of larger sovereigns “rolling over maturing debt on their own”, as well as the consequential occurrence of “very high, economically penalizing, interest rates”, is considered to be the present reality.<sup>25</sup>

Another problem involves bailouts related to sovereign debts: Whilst bailouts are deemed essential in facilitating financial stability, moral hazard, increased costs (particularly with regards to high interest rates), attributed to such bailouts need to be addressed. Where bailouts are eventually granted, distressed countries in need of such bailouts should be assisted in completing the repayments relating to such bailouts (through the extension of repayment periods or reduced interest rates) – rather than aggravating their position (hence facilitating the risk of defaults).

Whilst bailouts, in certain instances, are necessary in order to facilitate financial stability, such bailouts should occur as a means of last resort – after other initiatives and remedies have been

23 See Bank for International Settlements, „Macro prudential Policy Tools and Frameworks: Update to G20 Finance Ministers and Central Bank Governors” February 2011 at page 3 <<http://www.bis.org/publ/othp13.pdf>>

24 Sovereign debts differ from private debts in view of the fact that:

- Collateral is rarely ever provided;
- No direct means exist to ensure the enforcement of the repayment of sovereign debts
- No specified procedures exist in respect of a sovereign debtor who is unwilling to pay. See S Brandauer, “Sovereign Debt and Economic Policies in Global Markets: A Political Economy Approach” (2006) – particularly chapter on “Domestic Debt as a Commitment Device – A Probabilistic Voting Model of Sovereign Debt” at page 20 [http://edoc.ub.uni-muenchen.de/5082/1/Brandauer\\_Stefan.pdf](http://edoc.ub.uni-muenchen.de/5082/1/Brandauer_Stefan.pdf) (last visited 19 May 2012)

25 See N Economides and R C Smith, „Trichet Bonds To Resolve the European Sovereign Debt Problem“

applied and sought.

On March 12 2011, EU officials announced the following remedies – as a means of sustaining European sovereign debt markets:<sup>26</sup>

- Doubling the lending capacity of the European Financial Stability Facility (EFSF)<sup>27</sup> from 220 billion Euros to 440 billion Euros
- 
- Purchasing the sovereign debt of primary markets, as needed
  - Extending the repayment period for and lower than the interest rate charged on Greece's rescue loans.

It is not surprising that yields on the ten year Spanish, Greek and Portuguese bonds soared to new records, following the announcement. Such reaction serves only to justify the assertion that bailouts should not always be granted liberally without having consulted other measures. Sovereign debts, as highlighted earlier on in the abstract (and this section of the paper), given their nature, are more susceptible to defaults than other forms of private debts. The possibilities of such defaults occurring are further increased where bailouts are granted in relation to these debts.

Distressed countries, once granted bail-outs, should be given full assurance (by grantors of the bail-outs) that continued assistance will be provided in the form of accompanying aids to assist in completing repayments relating to such bailouts (through the extension of repayment periods or reduced interest rates) – rather than aggravating their position (hence facilitating the risk of defaults).

According to Economides and Smith, the European authorities' solution relating to the EC B's purchase of outstanding sovereign debt in the market (as of January 2011) had only succeeded in buying a small amount of the distressed debt whilst pushing bond prices upwards as a result of such intervention. They propose the creation of so called "Trichet Bonds" which are intended to be "new long duration bonds issued by countries in the EU area that are to be collateralized by zero-coupon bonds of the same duration issued by the ECB".<sup>28</sup> Advantages attributed to such "Trichet Bonds" are as follows:<sup>29</sup>

<sup>26</sup> See N Isaac, „EU Bailouts Fail to Keep European Sovereign Debt Markets Afloat“ April 2011

<http://www.elliottwave.com>

<sup>27</sup> On the 9<sup>th</sup> May 2010, Europe's Finance Ministers approved the creation of the European Financial Stability Facility – which is aimed at preserving financial stability in Europe (through the provision of financial assistance to Euro zone states during periods of economic difficulty). The objective of the EFSF being the collection of funds and the provision of loans in conjunction with the IMF to address the financing needs of Euro area member states in difficulty. Euro area member states are to provide guarantees for EFSF issuance of up to a total of 440 billion euro on a pro rata basis. See G Calice, J Chen and J Williams, "Liquidity Interactions in Credit Markets: An Analysis of the Euro zone Sovereign Debt Crisis" at page 1 of 41

[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1776425](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1776425)

<sup>28</sup> See N Economides and R C Smith, „Trichet Bonds to Resolve the European Sovereign Debt Problem“ at page 2

<http://ssrn.com/abstract=1836743>

<sup>29</sup> Ibid at pages 5 and 6

- Trichet Bonds Eliminate Uncertainties in respect of the Refinancing Distressed Countries' Maturing Debt
- Trichet Bonds will be of much higher quality than present sovereign debt of distressed countries
- Trichet bonds will be liquid
- Trichet bonds will require no bailouts and imply no moral hazard
- Trichet Bonds provide debt relief for distressed economies
- The exchange is voluntary and beneficial to both countries and debt holders

Such Trichet bonds, indeed, would have provided a better alternative to the remedies announced by EU officials on March 12, 2011. Had such Trichet bonds been considered as an initial resort, and given the existence of appropriate and adequate incentives for countries issuing such bonds, as well as debt holders to participate in the exchange process, they could have served as better initial options than the subsequent European bailouts.

Any possibilities or likelihood of successfully implementing such Trichet bonds at present, should be considered doubtful since no incentives would appear to exist – with respect to distressed EU countries such as Greece, Spain, Ireland and Portugal, in issuing such bonds. This is attributed to the fact that such countries having had a “better offer” in agreeing to the March 12 2011 remedies, are likely to be more reluctant to purchase “zero coupon collateral bonds” directly from the (European Central Bank) EC B. Apart from addressing whether such countries are able to “apply some of (or any of) their reserves held by the ECB for this purpose, or otherwise enter into an appropriate financing package with the ECB,<sup>30</sup> there would appear to be less incentives for such countries to issue these Trichet bonds since they have relatively long term obligations ( ten year bonds) at present. For these reasons, such possibilities of having provided a collateral with exchanged sovereign bonds (via the issue of Trichet bonds by distressed European countries), have been significantly reduced. There is now increased likelihood (with increased national deficits of certain distressed countries) that defaults will occur.

## **II. Should sovereign debts be encouraged?**

Increased costs<sup>31</sup> of sovereign debts will not only discourage investors in purchasing such debts (hence promoting a situation where higher yields occur) but would also increase possibilities where some bond holders (investors) may have to share costs attributed to future bailouts – with possibilities that taxpayers could even become involved in the cost sharing process.

Sovereign debts should be encouraged: i) where such debts are required for the stabilization of

<sup>30</sup> See *ibid* at page 5

<sup>31</sup> Booming deficits and the need to finance banking bailouts worth billions have turned sovereign bonds into the new “junk debt market”. Investors are now paying \$88,000 to insure \$1 million worth of debt issued by a group of sovereign countries – or 88 basis points – more than the \$83,000 paid to insure \$1 million worth of corporate debt. The growing problems of the Greek economy during 2010 resulted in the cost of its protection against default rising to more than 400 basis points.” See E Moya, “Greece and the Rising Costs of Sovereign Bonds” 29 January 2010 <<http://www.guardian.co.uk/business/2010/jan/29/greece-debt-eu-sovereign-bonds>>

economies and; ii) where some form of collateral accompanies such debts.

### **H. Role of New Basel Liquidity Standards in Mitigating Sovereign Debt Crises**

It is argued that the new liquidity standards should help facilitate greater diversification of the pool of liquid assets held by banks – contrary to the argument presented by those who are of the opinion that the new liquidity standards will facilitate a situation where a concentration of government debts are encouraged.<sup>32</sup> According to the Basel Committee’s most recent impact study, “bank holdings of liquid assets – which continue to be dominated by exposures to sovereigns, central banks and zero percent risk weighted public sector entities, comprise 85 % of banks’ liquid assets.”<sup>33</sup> Having considered both new liquidity standards,<sup>34</sup> it could be said that the second standard, that is the Net Stable Funding Ratio (NSFR) Standard, is more likely to facilitate a situation where assets are concentrated and susceptible to sovereign exposures. In any case, the crucial issue relates to the need to address the liquidity needs of such banking entities – and consideration of the fact that such standards did not exist previously – hence contributing to the fuelling of systemic and liquidity risks which triggered the recent Financial Crisis.

Furthermore, the additional leverage ratios which are to be introduced<sup>35</sup> by the Basel Committee, should help in facilitating the diversification of liquid assets. The two new standards, on their own, would probably not be able to effectively achieve the objective of diversification of liquid assets.

Leverage ratios will therefore play vital roles at the present time (and in the future) by:

- Helping to facilitate the diversification of assets – liquid assets in particular (and with respect to the new liquidity standards); and
- Helping to avoid the present consequential effects of Basel III – where banks, in an aim to achieve regulatory capital and leverage ratio requirements, are compelled into a situation where aggressive de leverage occurs.

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32 See S Walter, „Basel III: Stronger Banks and a More Resilient Financial System“  
<http://www.bis.org/speeches/sp110406.pdf> at page 4 of

12

33 *ibid*

34 “The first objective of the two standards is to promote the short-term resiliency of the liquidity risk profile of institutions by ensuring that they have sufficient high quality liquid resources to survive an acute stress scenario lasting for one month. The Committee developed the Liquidity Coverage Ratio to achieve this objective.”

35 “The Basel Committee agreed to introduce a simple, transparent, non-risk based leverage ratio that is calibrated to act as a credible supplementary measure to the risk based capital requirements. The leverage ratio is intended to achieve the objectives of constraining the build-up of leverage in the banking sector, helping avoid destabilizing deleveraging processes which can damage the broader financial system and the economy; and reinforcing the risk based requirements with a simple non-risk based “back stop” measure.” See Basel Committee on Banking Supervision, “Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems” at pages 68-69 of 77

## **I. How Can the New Basel Liquidity Standards be Implemented More Optimally to Mitigate Sovereign Debt Crises: Importance of Information Channels**

### **Market Liquidity and Sovereign Debts: Monitoring of Information Channels**

“Manipulation of market liquidity is often the primary mechanism through which speculative attacks are channeled and in this case, the object of interest is the bilateral liquidity structure of the sovereign debt market and the sovereign CDS (Credit Default Swap) market.”<sup>36</sup> The role and impact of the manipulation of the CDS market by speculative investors in exacerbating the liquidity dry up in the market for Greek, Irish, Portuguese and Spanish sovereign debts, during the 2010 Euro Crisis, raised concerns amongst several commentators.<sup>37</sup>

In this respect, greater focus on Pillar 3 of Basel II and the ever increasing need for greater measures aimed at extending capital rules (as well as other regulatory measures) to the securities markets, comes into play. If securities markets were not so lightly regulated as is the case with banks, less opportunities would be presented to investors who are able to manipulate<sup>38</sup> C D S markets. Measures aimed at facilitating greater enhanced disclosures continue to play a vital role in facilitating market discipline. However, in order to reduce incidences of “manipulation” by speculative investors, greater discretion in respect of the timing and release of information to investors, will be required. Just as information plays a crucial role in fuelling bank runs, it also plays a vital role in manipulation within the C D S markets. Regulations which are able to address “short-term speculative short selling practices” in respect of sovereign debts will be required within the C D S markets.

It has also been demonstrated that “whilst liquidity of the sovereign debt market dried up over the Crisis period of 2010, the liquidity of the C D S market increase dramatically with spread bids and spreads asked (offered) – approaching a one to one ratio.”

## **J. Conclusion**

As highlighted in a previous paper, “the monitoring of useful data - such as market-wide data on asset prices and liquidity, institution related information such as credit default swap (CDS) spreads and equity prices, additional institution-specific information related to the ability of the institution to fund itself in various wholesale funding markets, and the price at which it can do so, will be

36 See G Calice, J Chen and J Williams, “Liquidity Interactions in Credit Markets: An Analysis of the Euro zone Sovereign Debt Crisis” at page 5 of 41 <[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1776425](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1776425)>

37 See *ibid* at page 2 of 41

38 “In particular, “naked” C D S positions were blamed for driving bond yields on Greek, Irish, Spanish and Portuguese debt higher during the first half of 2010. Further, the manipulation of the C D S market by speculative investors was considered to have played a vital role in facilitating the dry up in the market for such countries’ sovereign debts. See *ibid*

vital in obtaining a source of instantaneous data on potential liquidity problems.<sup>39</sup>

In relation to the “cross sectional dimensional aspect” of the Basel Committee’s macro prudential policies, several provisions in Basel III should help to “address system risk and interconnectedness among (global) systemic institutions, by mitigating the risks arising from firm-level “cross dimensional” approach exposures.

These include: higher capital requirements for trading and derivative activities, complex securitizations and off balance sheet exposures, capital incentives for banks to use central counter parties for OTC derivatives; liquidity requirements that better address funding risks related to excessive reliance on wholesale short term funding.<sup>40</sup>

Until intended leverage ratios are introduced and coupled with the new liquidity standards [namely: the (Liquid Coverage Ratio) L C R and the Net stable Funding Ratio (NSFR)]; these standards will probably not achieve half their desired effects – since liquid assets could be accumulated under these standards, such as to an extent where they are susceptible to sovereign exposures. This is one reason (amongst many),<sup>41</sup> for concluding that whilst the Basel Committee has gone a long way in addressing liquidity risks, its efforts still remain a modest milestone in combating liquidity risks in prudential supervision.

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39 See M Ojo, „Preparing for Basel I V – Why Liquidity Risks Still Present a Challenge to Regulators in Prudential Supervision (II); and also Basel Committee on Banking Supervision, “Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems”

<http://www.bis.org/publ/bcbs189.pdf>

40 Bank for International Settlements, „Macro prudential Policy Tools and Frameworks: Update to G20 Finance Ministers and Central Bank Governors” February 2011 at page 7 < <http://www.bis.org/publ/othp13.pdf>>

41 Further challenges presented to Basel III include the restrictions imposed on it by the Dodd Frank Act – even though the Act is similar to Basel III in several respects (for example, in respect of its requirements of more stringent capital and liquidity standards, and a non risk leverage ratio).

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