

## ABSTRACT

As well as highlighting the importance of introducing counter cyclical capital buffers, this paper draws attention to the need for greater focus on “more forward looking provisions”, as well as provisions which are aimed at addressing losses and unforeseen problems attributed to “maturity transformation of short-term deposits into long term loans.” Whilst the need for forward looking provisioning has been echoed by some authorities on the literature, the paper also adds weight to the argument through its attempt to link such an argument to the ever increasing prominence assumed by liquidity risks – since liquidity also contributes to pro cyclicality.

“The complex response of financial institutions to deteriorating market conditions - which to a large extent, is attributed to liquidity shortfalls which reflected on and off balance sheet maturity mismatches and excessive levels of leverage, has resulted in an increasingly important role for liquidity provided by central banks in the funding of bank balance sheets.” Owing to such increased importance of liquidity risks, this paper also attempts to highlight why the Basel Committee’s Counter Cyclical Buffer Proposal – a response to the recent financial crisis (which to a significant extent, focuses on banking sector capital requirements), should also take greater account of more forward looking provisions. In so doing, it draws attention to the importance of coupling forward looking provisions (as well as other measures) with counter cyclical charges and why this provides a better alternative to the mere introduction of counter cyclical capital charges.

**Key Words:** Counter cyclical buffers, liquidity risks, pro cyclicality, capital, loan loss provisions, financial crises, bank, regulation

# Measures Aimed at Mitigating Pro Cyclical Effects of the Capital Requirements Framework: Counter cyclical Capital Buffer Proposals

*Marianne Ojo<sup>1</sup>*

## Introduction

In its consultative document on “Counter Cyclical Capital Buffer Proposal”<sup>2</sup> the Basel Committee highlights the principal aim of the proposal, namely “the implementation of buffers of capital to achieve the broader macro prudential goal of protecting the banking sector from periods of excess aggregate credit growth which have been linked to the build up of system wide risk.”<sup>3</sup> A further benefit of the proposal which is attributed to the aim of protecting the banking sector from the credit cycle is its potential to assist in “leaning against the build-up phase” of the cycle in the first instance – this occurring (according to the Committee), through the capital buffer acting to raise the cost of credit – hence dampening and reducing its demand.<sup>4</sup>

This paper aims to highlight reasons attributed to the importance of introducing counter cyclical capital buffers – the principal focus being the need to mitigate pro cyclical effects. In so doing it commences with an introduction on how such pro cyclical effects arise and why they need to be addressed. The paper also illustrates that even though it is increasingly acknowledged that capital, on its own, cannot address system wide risks (owing to the growing importance and significance of liquidity risk), that current measures aimed at mitigating pro cyclical effects focus primarily on capital. Hence the need to introduce counter cyclical buffer proposals which are also linked to the redress of liquidity risks, also constitutes an objective which the paper aims to address. Such need will be considered under the fourth section of this paper which considers recommendations made by the Financial Stability Forum and which specifically (and importantly) includes bank loan loss provisions. Thus whilst progress with measures aimed at ensuring that banking systems are equipped with buffers of capital (to protect them against future losses) is very much appreciated, greater focus on other measures aimed at addressing losses and unforeseen problems attributed to “maturity transformation of short-term deposits into long term loans”<sup>5</sup> (which exposes banks to such vulnerabilities as liquidity risks) are required.

One of the principles which were highlighted by the Basel Committee as constituting vital components of a “global financial stability framework” is namely, the principle that “All macroeconomic policies need to be counter cyclical, building up buffers in good times that can be

---

<sup>1</sup> Researcher, Center for European Law and Politics (ZERP), University of Bremen, Teaching Associate Oxford Brookes University, Oxford.

<sup>2</sup> See Basel Committee on Banking Supervision, „Consultative Document: Counter Cyclical Capital Buffer Proposal“ July 2010 <http://www.bis.org/publ/bcbs172.pdf?noframes=1> at page 2. The Consultative Document interestingly highlights the fact that the Counter Cyclical Proposal is not a Pillar 2 approach – since “it does not relate to supervisor review of individual banks.” see *ibid* at page 12. Furthermore, the Consultative Document addresses the treatment of surplus when buffer returns to zero by indicating that “the Basel Committee’s working assumption is that the capital surplus created when the counter cyclical buffer is returned to zero, should be unfettered – that is, no restrictions should be imposed on distributions when the buffer is turned off.” See *ibid* at page 13

<sup>3</sup> Further, the Committee adds that since capital is more expensive than other forms of funding, the build up of defences (such as capital defences which are built up by banks during periods where “the risks of system-wide stress” are characterised by significant and marked levels of growth) may provide the additional benefit of helping to stabilise excessive credit growth levels during periods of economic and financial booms. See *ibid*.

<sup>4</sup> See *ibid* at page 3

<sup>5</sup> See Principles for Sound Liquidity Risk Management and Supervision September 2008 at page 1 (page 7 of 44) <<http://www.bis.org/publ/bcbs144.htm>>

run down in bad times. In particular, fiscal authorities need to reduce debt levels in good times in order to have the capacity to respond at times of stress. “<sup>6</sup>

Whilst it is contended that monetary policies should be aimed at the control of inflation, fiscal policies are considered to have the role of “counter cyclical demand management.”<sup>7</sup>

## **A. Pro cyclicality<sup>8</sup>**

Pro cyclicality is a term used to denote “ the self-reinforcing mechanisms within the financial system and between the financial system and the real economy that can exacerbate boom and bust cycles, undermining financial and macroeconomic stability. These effects are most prominent in the downward phase. As strains develop, previously unseen risks materialise, deepening the retrenchment that is already under way.”<sup>9</sup> Furthermore, it is not only contended that “the effects of pro cyclicality are critical (but hidden) in the expansion phase, when the underlying risks build up, but that historical experience reveals that credit mistakes are made during the boom phase but are revealed only during the bust.”

An example of a “fundamental” source of pro cyclicality as provided by the Committee of the European Banking Supervisors(CEBS),<sup>10</sup> is attributed to “excessive risk-taking during periods of expansion, which results in the build up of vulnerabilities”.

Some of the recommendations put forward and highlighted as means of addressing pro cyclicality include:<sup>11</sup>

- A policy response founded on the build up and run down of capital buffers in a counter cyclical fashion over the business cycle. These safety margins must be built up in good times, when it is easier and cheaper to do so.<sup>12</sup> Such a build-up will restrain risk-taking during the expansion phase of the business cycle. During periods of recession, these buffers can be run down, allowing the system to absorb emerging strains more easily and dampening the feedback mechanisms.
- The importance of distinguishing between the regulatory minimum capital requirement and buffers operating above the minimum requirements. A breach of the regulatory minimum brings with it severe consequences, which could result in a bank being shut down. The

<sup>6</sup> See H Hannoun, „Towards a Global Financial Stability Framework“ Bank for International Settlements Publications, page 2 of 26 <<http://www.bis.org/speeches/sp100303.pdf>>

<sup>7</sup> ibid at page 6. Furthermore, it is added that consideration should be given to “the need to maintain fiscal buffers that allow a response to financial system stress - which implies that government debt should be maintained at reasonably low levels in good times so that additional debt can be taken on in times of stress without unsettling financial markets.” See ibid at page 7

<sup>8</sup> Pro cyclicality is also the tendency for periods of financial/economic downturns or booms to be further exacerbated by certain economic policies. For further considerations on the possible consequences of according a high degree of prominence to certain economic objectives, see M Ojo, „Social Rights and Economic Objectives: The Importance of Competition at Supra National Level „ [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1651610](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1651610)

<sup>9</sup> See H Hannoun, „Towards a Global Financial Stability Framework“ Bank for International Settlements Publications, page 16 and 17 of 26 <<http://www.bis.org/speeches/sp100303.pdf>>

<sup>10</sup> Furthermore, the CEBS defines pro cyclicality as comprising “mechanisms through which the financial system can amplify business fluctuations that are particularly disruptive during an economic downturn or when the financial system is faced with pressures.” See Committee of European Banking Supervisors, “Position Paper on a Counter Cyclical Capital Buffer” July 2009 at page 34

<sup>11</sup> H Hannoun, „Towards a Global Financial Stability Framework“ Bank for International Settlements Publications, page 16 and 17 of 26

<sup>12</sup> ibid; also see Bank for International Settlements, “Addressing financial system procyclicality: a possible framework”, *Note for the FSF Working Group on Market and Institutional Resilience*, April 2009.

buffers are intended to be built up in good times so that they can absorb losses without the bank becoming insolvent.”

The Basel Committee has proposed building up these buffers through a combination of counter cyclical capital charges, forward-looking provisioning and capital conservation measures.<sup>13</sup> It is also recommended that other potential macro prudential instruments such as loan-to-value (LTV) ratios should be explored.

Jimenez and Saurina, Goodhart, Hofmann and Segoviano are amongst several other academics who have put forward proposals aimed at addressing pro cyclical problems.<sup>14</sup> The proposal put forward by Jimenez and Saurina “focuses on an additional flow of loan loss provisions – in addition to specific and general provisions.”<sup>15</sup> Such a design is aimed at addressing the “future increase in credit risk deriving from too lenient credit standards during periods of economic booms.”<sup>16</sup> As observed by the CEBS, whilst a similar proposal (to that of Jimenez and Saurina) was also put forward by Goodhart, Hofmann and Segoviano, some reservations on the potential and efficiency of the present applicable principle for policy intervention (that is, conserving buffers in the system during periods of economic booms – for the purposes of “controlled” utilisation of such buffers during periods of economic pressures), were expressed by Kashyap, Rajan and Stein.<sup>17</sup>

The promotion of financial stability through more risk sensitive capital requirements, constitutes one of Basel II’s primary objectives.<sup>18</sup> However some problems identified with Basel II are attributed to pro cyclicality and to the fact that not all material credit risks in the trading book are adequately accounted for in the current capital requirements.<sup>19</sup> The pro cyclical nature of Basel II has been criticised since “capital requirements for credit risk as a probability of default of an exposure decreases in the economic upswing and increases during the downturn”<sup>20</sup> – hence resulting

<sup>13</sup> See H Hannoun, „Towards a Global Financial Stability Framework“ Bank for International Settlements Publications, page 16 of 26 <http://www.bis.org/speeches/sp100303.pdf> and also Basel Committee on Banking Supervision, *Strengthening the resilience of the banking sector – consultative document*, December 2009.

<sup>14</sup> For further information on this see Committee of European Banking Supervisors, “Position Paper on a Counter Cyclical Capital Buffer” July 2009 at page 34. “Studies which were included and reviewed in the Dynamic Operation Project (DOP) of the Basel Committee on Banking Supervision (BCBS) – which addressed the issue of the cyclical nature of Pillar One capital requirements include those of Goodhart, Hofmann and Segoviano along with Kashyap and Stein. The DOP report examined several academic papers that implemented simulation approaches to estimate the magnitude of the cyclical variations of Basel II requirement over the business cycle.” See *ibid* at page 33.

<sup>15</sup> See *ibid* at page 33

<sup>16</sup> “Given that the provision is positive during periods of economic booms, and negative during periods of recessions, it is argued that such a provision should have a counter cyclical impact on banks’ lending policies.” *ibid*

<sup>17</sup> It is acknowledged that “time-varying capital requirements represent a potentially important improvement over the current time invariant approach in Basel II because they allow some of the rainy day funds to be spent when it rains – thereby reducing the pressure on banks to liquidate assets (as well as associated negative spill overs for the rest of the economy. However, time varying capital requirements are also acknowledged to be problematic from a cost perspective” See *ibid* at page 36; see also Jimenez and Saurina, “Credit Cycles, Credit Risk, and Prudential Regulation” (2006) *International Journal of Central Banking*, vol.2, no.2; Goodhart, Hofmann and Segoviano, “Bank Regulation and Macroeconomic Fluctuations” (2004) *Oxford Review of Economic Policy*, vol. 20, no. 4; Kashyap, Rajan and Stein, “Rethinking Capital Regulation”, Paper prepared for the Federal Reserve Bank of Kansas City symposium on “Maintaining stability in a Changing Financial System”, Jackson Hole, August 2008.

<sup>18</sup> For further objectives, see, Accompanying Document to the Proposal for a Directive of the European Parliament and of the Council amending Capital Requirements Directive on trading book, securitisation issues and remuneration policies. < [http://ec.europa.eu/internal\\_market/bank/docs/regcapital/com2009/impact\\_assesment\\_en.pdf](http://ec.europa.eu/internal_market/bank/docs/regcapital/com2009/impact_assesment_en.pdf) > at page 22 of 47

<sup>19</sup> See *ibid* at page 23 of 47

<sup>20</sup> See Annex on Proc cyclical, Accompanying Document to the Proposal for a Directive of the European Parliament and of the Council amending Capital Requirements Directive on trading book, securitisation issues and remuneration policies. < [http://ec.europa.eu/internal\\_market/bank/docs/regcapital/com2009/impact\\_assesment\\_en.pdf](http://ec.europa.eu/internal_market/bank/docs/regcapital/com2009/impact_assesment_en.pdf) > at page 46 of 47

in capital requirements which fluctuate over the cycle. Other identified<sup>21</sup> consequential effects include the fact that fluctuations in such capital requirements may result in credit institutions raising their capital during periods when it is costly<sup>22</sup> for them to implement such a rise – which has the potential of inducing banks to cut back on their lending. It is concluded that “risk sensitive capital requirements should have pro cyclical effects principally on undercapitalised banks.”<sup>23</sup>

Regulators will be able to manage systemic risks to the financial system during such periods when firms which are highly leveraged become reluctant to lend where more market participants such as credit rating agencies, could be engaged in the supervisory process. The Annex to Pro cyclical in the Accompanying Document amending the Capital Requirements Directive<sup>24</sup> not only importantly emphasises the fact that regulatory capital requirements do not constitute the sole determinants of how much capital banks should hold, but also highlights the role of credit rating agencies in compelling banks to increase their capital levels even where such institution may be complying with regulatory requirements.

The fact that “adjustments (for individual institutions’ contributions to systemic risk) would actually exacerbate pro cyclical, has been highlighted.<sup>25</sup> A second and further consequence of using “certain market based measures of systemic risk to address the time dimension” is that, “the measures would provide the wrong signal: Systemic risk would look low when, in fact, it was actually high.”<sup>26</sup>

Even though the implementation of higher levels of capital buffers could serve as a means for the management of systemic risks, liquidity requirements<sup>27</sup> have also been acknowledged by many as having a fundamental role to play in mitigating contagion – hence assuming a role which is similar to that of capital buffers.<sup>28</sup> The link between counter cyclical buffers, capital and liquidity standards is further demonstrated through the impact which is generated as a result of the implementation of capital and liquidity standards. Counter cyclical buffer schemes could serve as means of enhancing

---

<sup>21</sup> As identified in the Accompanying Document to the Proposal for a Directive of the European Parliament and of the Council amending Capital Requirements Directive on trading book, securitisation issues and remuneration policies. See page 46 of 47

<sup>22</sup> Liquidity, a topic which will be addressed in the next section, is also considered to be “highly pro cyclical, growing in good times and drying up in times of stress.” During the build up to the present crisis, banks and other financial institutions had an incentive to minimise the cost of holding liquidity. See Report of the Financial Stability Forum on Addressing Pro cyclical in the Financial System “Measuring and Funding Liquidity Risk” at page 24 [http://www.financialstabilityboard.org/publications/r\\_0904a.pdf](http://www.financialstabilityboard.org/publications/r_0904a.pdf)

<sup>23</sup> See “Is Basel II Pro Cyclical? A Selected Review of the Literature” Financial Stability Review December 2009 at page 150

<sup>24</sup> Accompanying Document to the Proposal for a Directive of the European Parliament and of the Council amending Capital Requirements Directive on trading book, securitisation issues and remuneration policies.< [http://ec.europa.eu/internal\\_market/bank/docs/regcapital/com2009/impact\\_assessment\\_en.pdf](http://ec.europa.eu/internal_market/bank/docs/regcapital/com2009/impact_assessment_en.pdf)> See page 46 of 47

<sup>25</sup> See C Borio, “Implementing a Macro Prudential Framework : Blending Boldness and Realism” Bank for International Settlements Publications at page 8 <[http://www.bis.org/repofficepubl/hkimr201007.12c.pdf?](http://www.bis.org/repofficepubl/hkimr201007.12c.pdf?noframes=1)  
noframes=1>

<sup>26</sup> ibid

<sup>27</sup> “However, the analysis of the impact of liquidity standards is considered to present specific challenges. Under the Proposal put forward by the Basel Committee on Banking Supervision in December 2009, banks will be required to meet two new liquidity requirements – a short term requirement called the Liquidity Coverage Ration (LCR) and a long term requirement called the Net Stable Funding Ratio (NSFR). The Proposal focuses mainly on the NSFR – which is considered to be the more relevant constraint to macro economic effects on a longer term basis.” See Basel Committee on Banking Supervision, “An Assessment of the Long Term Economic Impact of Stronger Capital and Liquidity Requirements” Bank for International Settlements Publications August 2010 at page 7 <<http://www.bis.org/publ/bcbs173.pdf?noframes=1>>

<sup>28</sup> See particularly R Cifuentes, G Ferrucci and HS Shin, “Liquidity Risk and Contagion” (2005) Journal of the European Economic Association Volume 3 at pages 556-566 <http://www.bri.org/bcbs/events/rtf04shin.pdf>

the following effects which are generated by higher capital and liquidity standards, namely:<sup>29</sup>

- Making the financial system more resilient and:
- Reducing the amplitude of the business cycles within the financial system.

The association between systemic risks and liquidity risks and the rather apparent lack of due recognition accorded to liquidity risks under Basel II, constituted other reasons for the growing criticism of Basel II.

## **B. Liquidity Risk**

The definition of liquidity, as provided by the Bank of International Settlements (BIS), is “the ability of a bank to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses. The fundamental role of banks in the maturity transformation of short-term deposits into long-term loans makes banks inherently vulnerable to liquidity risk, both of an institution-specific nature and that which affects markets as a whole.”<sup>30</sup>

In their report on “Addressing Pro cyclicalities in the Financial System: Measuring and Funding Liquidity Risk”, the Financial Stability Forum (FSF) noted that at the onset of the recent financial crises, the complex response of financial institutions to deteriorating market conditions, was to a large extent, attributed to liquidity shortfalls which reflected “on and off balance sheet maturity mismatches and excessive levels of leverage.”<sup>31</sup> This has resulted in an “increasingly important role for liquidity provided by central banks in the funding of bank balance sheets.”<sup>32</sup> Furthermore, the FSF highlighted the urgency of both authorities, namely, supervisors (in their monitoring of liquidity risks at banks) and central banks (in their design and implementation of market operations) collaborating in order to “restore the functioning of inter bank lending markets.”<sup>33</sup>

As identified in the ECB’s Financial Stability Review, “the specific knowledge that banks possess about their borrowers make bank loans particularly illiquid.”<sup>34</sup> The connection between liquidity and systemic risks is further highlighted in the Review where it elaborates on possible consequences resulting from a bank’s failure, namely:<sup>35</sup> The “destruction” of such specific knowledge which banks have about their borrowers and the reduction of “the common pool of liquidity.”<sup>36</sup> Such reduction in the common pool of liquidity may also trigger the failure of other banks – with the result that i) the value of such illiquid bank assets diminishes and ii) further problems within the banking systems are aggravated.<sup>37</sup>

“Endogenous risks” could also be generated depending on the type of information which the bank

<sup>29</sup> See Basel Committee on Banking Supervision, “An Assessment of the Long Term Economic Impact of Stronger Capital and Liquidity Requirements” Bank for International Settlements Publications August 2010 at page 5  
<<http://www.bis.org/publ/bcbs173.pdf?noframes=1>>

<sup>30</sup> Principles for Sound Liquidity Risk Management and Supervision Sept 2008 at page 1  
<<http://www.bis.org/publ/bcbs144.htm>>

<sup>31</sup> Report of the Financial Stability Forum on “Addressing Pro cyclicalities in the Financial System: Measuring and Funding Liquidity Risk” [http://www.financialstabilityboard.org/publications/r\\_0904a.pdf](http://www.financialstabilityboard.org/publications/r_0904a.pdf) at page 24

<sup>32</sup> *ibid*

<sup>33</sup> „In order to counter the transfer of funding liquidity risk by systemically important financial institutions to the public sector“ ;*ibid*

<sup>34</sup> “The Concept of Systemic Risk” Financial Stability Review December 2009  
<http://www.ecb.int/pub/fsr/shared/pdf/ivbfinancialstabilityreview200912en.pdf?3a3fef6891f874a3bd40cd00aef38c64f> at page 137

<sup>35</sup> *ibid*

<sup>36</sup> *ibid*

<sup>37</sup> *ibid*

possesses about their borrowers and how the dissipation of such information to the public, if it has the potential to trigger a bank run, can be prevented.

### According Greater Attention to Liquidity Risks

In February 2008, the Basel Committee on Banking Supervision published a paper titled “Liquidity Risk Management and Supervisory Challenges”, a paper which highlighted the fact that many banks had ignored the application of a number of basic principles of liquidity risk management during periods of abundant liquidity.<sup>38</sup>

An extensive review of its 2000 “Sound Practices for Managing Liquidity in Banking Organisations” was also carried out by the Basel Committee as a means of addressing matters and issues arising from the financial markets and lessons from the Financial Crises.<sup>39</sup>

In order to consolidate on the BCBS *Principles for Sound Liquidity Risk Management and Supervision* of September 2008, which should lead to improved management and supervision of liquidity risks of individual banks, supervisory bodies will be required “to develop tools and policies to address the pro cyclical behaviour of liquidity at the aggregate level”.<sup>40</sup>

In responding to the apparent gaps which exist with Basel II – as revealed by the recent crises, proposals which are aimed at imposing penalties for the occurrence of maturity mismatches<sup>41</sup> have been put forward.<sup>42</sup> The degree of disparity which exists between the maturity of assets and liabilities is crucial to determining the state of a company’s liquidity. Such penalties aimed at deterring the occurrence of maturity mismatches could include “higher capital requirements for banks which finance their assets with overnight borrowing from the money markets than banks which finance similar assets with term deposits.”<sup>43</sup>

The inability of bank capital, on its own, to address funding and liquidity problems has been acknowledged by many academics. As a result, further proposals, in addition to the above mentioned amendment to Basel II, have been put forward. These include the coupling of the existing regulatory framework with capital insurance or liquidity insurance mechanisms.<sup>44</sup> Such proposals are aimed at “giving banks the right incentives *ex ante* and at improving the resilience of the financial system to shocks *ex post*.”<sup>45</sup> Furthermore, the ECB’s Financial Stability Review also highlights proposals which are aimed at supplementing Basel II regulation through the

<sup>38</sup> Principles for Sound Liquidity Risk Management and Supervision Sept 2008  
<<http://www.bis.org/publ/bcbs144.htm>>

<sup>39</sup> *ibid*

<sup>40</sup> “The FSF proposes that the BCBS and CGFS develop a joint research effort to address funding and liquidity risk, starting in 2009. A key component of this research agenda is to define robust measures of funding and liquidity risk, which could assist assessments of liquidity risk by the private sector. Stress tests to gauge the probability and magnitude of a liquidity crisis in different market environments will be considered in this light.” For further information on this, see Report of the Financial Stability Forum on Addressing Pro cyclicity in the Financial System: Measuring and Funding Liquidity Risk” [http://www.financialstabilityboard.org/publications/r\\_0904a.pdf](http://www.financialstabilityboard.org/publications/r_0904a.pdf) at page 24

<sup>41</sup> A situation which could occur where an undertaking possesses more short term liabilities than short term asset. It could also occur where more assets are held (than liabilities) for medium and long term obligations.

<sup>42</sup> See “Is Basel II Pro Cyclical? A Selected Review of the Literature” Financial Stability Review December 2009 at page 148 and particularly Brunnermeier et al whose proposal includes the requirement of greater capital, “not only against the risk of assets, but also against the risk of funding such assets.”

<sup>43</sup> *Ibid* at 148

<sup>44</sup> Brunnermeier et al, Kashyap et al, and Perrotti and Suarez are all of the opinion that even though liquidity assistance to help banks cope with aggregate liquidity shocks is commendable, it would generate minimal benefits where such banks are not provided with the right incentives to reduce the probability of such shocks in the first place. For further information on this, see “Is Basel II Pro Cyclical? A Selected Review of the Literature” Financial Stability Review December 2009 at page 149

<sup>45</sup> *ibid*

establishment of a mandatory liquidity insurance arrangement - whereby each bank has to pay the supervisor a liquidity charge.<sup>46</sup>

Even though the Basel Committee states (in its Consultative Document) that its Counter Cyclical Capital Buffer Proposal is not a Pillar 2 approach “since it does not relate to the supervisor review of individual banks”<sup>47</sup>, the Committee of European Banking Supervisors (CEBS) highlights the fact that “whilst forward looking systems of capital buffers for banks should be designed within the boundaries of the existing framework and that identified mechanisms could be employed alternatively under Pillar One, that its implementation under Pillar Two is still considered to be the most sensible option at the time.”<sup>48</sup>

The Committee of European Banking Supervisors classifies Pillar 2 capital buffers into two components – the first being aimed at “building sufficient additional resources (above regulatory minimum) whilst the second is aimed at “covering losses arising from extreme events.”<sup>49</sup> Whilst the CEBS is also of the opinion that rating agencies appear to prefer Pillar One solutions (which are considered to be more transparent and less prone to national discretions), it also draws attention to the fact that Pillar 2 would allow for quicker responses and may be used for testing tools (which will be subsequently improved and possibly implemented under Pillar One).<sup>50</sup>

### C. Mitigating the Procyclical Effects of Basel II

#### Basel III

The more refined and consolidated Basel II framework - along with “macro prudential overlay” [the objective of this “macro prudential overlay” comprising i) the redress of stability over time (that is, to address pro cyclicity), and ii) the redress of stability at each point in time (system-wide approach)],<sup>51</sup> is referred to as Basel III.<sup>52</sup> Means through which “stability over time (pro cyclicity)” could be achieved include:<sup>53</sup>

- Through counter cyclical capital charges and forward looking provisioning
- Capital conservation rules for stronger capital buffers.”

According to a report,<sup>54</sup> the two principal solutions which have been endorsed by the Turner Review and the DeLarosiére Report, and which are considered to have the potential to reduce pro cyclical effects<sup>55</sup> induced by the CRD and Basel II, include: 1) The requirement that banks “hold bigger

<sup>46</sup> ibid

<sup>47</sup> See Basel Committee on Banking Supervision, „ Consultative Document: Counter cyclical Capital Buffer Proposal“ July 2010 <http://www.bis.org/publ/bcbs172.pdf?noframes=1> at page 2.

<sup>48</sup> Committee of European Banking Supervisors “Position Paper on a Counter Cyclical Capital Buffer” July 2009 at pages 1 and 2 <<http://www.c-ebs.org/getdoc/715bc0f9-7af9-47d9-98a8-778a4d20a880/CEBS-position-paper-on-a-countercyclical-capital-b.aspx>>

<sup>49</sup> ibid at page 3

<sup>50</sup> ibid at page 4; On this basis, members of the CEBS conclude that “any counter cyclical adjustments should be calibrated to individual banks’ portfolios and based on risk sensitive concepts.” See ibid.

<sup>51</sup> 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>>

<sup>52</sup> ibid

<sup>53</sup> ibid; Means whereby stability at each point in time (system-wide approach) could be achieved include through “systemic capital surcharge for systemically important financial institutions; the identification of inter linkages and common exposures among all financial institutions; and the systemic oversight of OTC derivatives.” ibid.

<sup>54</sup> The Turner Review :Key Elements of the Turner Review (page 2 of 4) <<http://www.dlapiper.com>>

<sup>55</sup> Exacerbated strains on bank capital is the term used to denote pro cyclicity ; see ibid

International Accounting Standards are also considered to have had a pro-cyclical impact. It is stated that “in

reserves during good times - hence limiting credit and risk expansion in good times and storing up capital to be used during bad times” (2) “Increasing risk-weighting on a range of assets because this also restricts balance sheet expansion”.

Another proposal put forward as an optimal means of rectifying Basel II's pro cyclical effects – as illustrated through the “amplification of business cycle fluctuations”, involves the utilisation of a “business cycle multiplier of the Basel II capital requirements that is increasing in the rate of growth of the GDP”. Under such a scheme, it is argued, riskier “banks would face higher capital requirements without regulation exacerbating credit bubbles and crunches.”<sup>56</sup>

Other mechanisms provided under the CRD as means of mitigating pro cyclical effects within the capital requirements framework include:<sup>57</sup>

The use of downturn Loss Given Default (LGD) estimates, PD estimates being based on long data series, technical adjustments made to the risk weight function, stress testing requirements and Pillar 2 supervisory review process. It is acknowledged, however, that more measures may be required to mitigate the pro cyclical effects of the capital requirements framework. Options provided include those aimed at reducing its cyclical risk sensitivity, measures which enhance its risk capture, and the intentional introduction of counter-cyclical buffers (comprising capital and/or provisions).

A counter cyclical capital charge, it is contended,<sup>58</sup> “would require financial institutions to hold more capital during buoyant periods whilst lowering the regulatory capital levels during periods of stress.” Other capital conservation measures include “actions aimed at limiting excessive dividend payments, share buy backs and compensation paid out by financial institutions. Through a retention of earnings during buoyant periods, a bank is able to conserve excess capital which can be used to absorb asset write offs during less buoyant periods and periods of financial stress.”<sup>59</sup>

The introduction of forward looking provisions has been supported by various sources and bodies.<sup>60</sup> As well as illustrating how dynamic provisions can contribute towards mitigating pro cyclical effects, a preference for such provisions (in comparison to prudential reserves), has also been

---

particular moving to marking to market accounting, rather than the more traditional marking to maturity, exacerbated volatility in the accounts of banks – with valuation becoming practically impossible for some securities as the market in them disappeared.”; *ibid*

<sup>56</sup> R Repullo, J Saurina, and Carlos Trucharte, “How to Mitigate the Pro cyclical Effects of Capital Adequacy Rules” <<http://www.eurointelligence.com/article.581+M5ff0e4ba595.0.html>>

<sup>57</sup> See the Accompanying Document to the Proposal for a Directive of the European Parliament and of the Council amending Capital Requirements Directive on trading book, securitisation issues and remuneration policies [http://ec.europa.eu/internal\\_market/bank/docs/regcapital/com2009/impact\\_assesment\\_en.pdf](http://ec.europa.eu/internal_market/bank/docs/regcapital/com2009/impact_assesment_en.pdf) Page 46 of 47

<sup>58</sup> See H Hannoun, „Towards a Global Financial Stability Framework“ Bank for International Settlements Publications, page 17; The methodology of the proposed “Too-Connected-to-Fail Capital Charge” highlighted by Jorg Chan Lau in his paper, comprises three important features . “First, it builds upon an intuitive principle: the capital charge must be proportional to the incremental contribution to societal losses (or risk) due to the failure of the institution. Second, by relating the concept of incremental contribution to systemic risk to concepts such as Value-at-Risk and Expected Shortfall, the TCTF capital charge is aligned with the spirit of Basel II. This alignment will facilitate its adoption and implementation by supervisory agencies and systemic risk regulators. Third, the measurement of the incremental contribution can be accomplished using a simple toolkit of models such as CoRisk analysis, network analysis, and portfolio credit risk models.” See J Chan Lau, „Regulatory Capital Charges for Too-Connected-to-Fail Institutions: A Practical Proposal” [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1566443](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1566443) and <http://www.imf.org/external/pubs/ft/wp/2010/wp1098.pdf> at page 21

<sup>59</sup> See H Hannoun, „Towards a Global Financial Stability Framework“ Bank for International Settlements Publications, page 17

<sup>60</sup> Bodies such as ECOFIN. See particularly, M Burroni et al, “Dynamic Provisioning: Rationale, Functioning, and Prudential Treatment” [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1531323](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1531323) and [http://www.bancaditalia.it/pubblicazioni/econo/quest\\_ecofin\\_2/QF\\_57/QEF\\_57.pdf](http://www.bancaditalia.it/pubblicazioni/econo/quest_ecofin_2/QF_57/QEF_57.pdf) at page 6

highlighted.<sup>61</sup> Burroni et al share the opinion that since provisions directly affect reported profits, they are more fully consistent with the idea of an expected loss model<sup>62</sup> (than is the case with prudential reserves).<sup>63</sup>

The benefits of provisions, and particularly forward looking provisions, will be considered in greater detail under the concluding section of this paper.

#### **D. Principles Governing the Operation of the Basel Committee's Counter Cyclical Capital Buffer Proposal**

In opting for the establishment of principles which would serve as guidance for the operation of its counter cyclical capital buffer proposal, the Basel Committee made provision for possible problems which could arise if a hard rules – based approach were to be adopted.<sup>64</sup> Such problems, in the Basel Committee's opinion, include the requirement of a very high degree of confidence ("that the variables used to calculate the buffer requirement would **always** correctly perform as intended and would not send out false signals").<sup>65</sup> Despite allowing for a certain degree of flexibility – through such a principles and judgemental based approach, the Committee acknowledges the importance of establishing a "clear set of principles" which would not only "promote sound decision making in the setting of the counter cyclical buffer"<sup>66</sup> but the need to restrict the scope of judgement allowed (through the establishment of such clear set of principles). Furthermore, it highlights the importance of "proper communication" (where exercising such judgemental based decisions) as constituting an integral aspect of the proposal.<sup>67</sup>

Whilst the principles generally serve as guidance in the use of judgement within the framework, Principle One specifically provides that buffer decisions are to be guided by "the objectives to be achieved by the buffer – namely the protection of the banking system against potential future losses when excess credit growth is associated with an increase in system-wide risk."<sup>68</sup>

Principle Five highlights the importance of alternative tools such as "loan-to-value limits, interest rate qualification tests or sectoral capital buffers which may be deployed in situations where excess credit growth is concentrated in specific sectors but aggregate credit growth is judged not to be

---

<sup>61</sup> See *ibid* at page 23

<sup>62</sup> "Regulatory capital", it is argued, "should address "unexpected losses"- such losses being defined as "losses that are large but infrequent" . On the other hand, "loan loss reserves should address "expected losses". See L Laeven and G Majnoni, " Loan Loss Provisioning and Economic Slowdown: Too Much Too Late?" (2003) *Journal of Financial Intermediation* Volume 12 at page 195

<sup>63</sup> M Burroni et al, "Dynamic Provisioning: Rationale, Functioning, and Prudential Treatment" [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1531323](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1531323) and [http://www.bancaditalia.it/publicazioni/econo/quest\\_ecofin\\_2/QF\\_57/QEF\\_57.pdf](http://www.bancaditalia.it/publicazioni/econo/quest_ecofin_2/QF_57/QEF_57.pdf) at page 23

<sup>64</sup> See Basel Committee on Banking Supervision, „ Consultative Document: Counter cyclical Capital Buffer Proposal“ July 2010 <http://www.bis.org/publ/bcbs172.pdf?noframes=1> at page 7

<sup>65</sup> *ibid*

<sup>66</sup> *ibid*

<sup>67</sup> *ibid*

<sup>68</sup> "The counter cyclical capital buffer is meant to provide the banking system with an additional buffer of capital to protect it against potential future losses, when excess credit growth in the financial system as a whole is associated with an increase in system-wide risk. The capital buffer can then be released when the credit cycle turns so that the released capital can be used to help absorb losses and reduce the risk of the supply of credit being constrained by regulatory capital requirements. A side benefit of operating the buffer in this fashion is that it may lean against the build-up of excess credit in the first place. As such, the buffer is not meant to be used as an instrument to manage economic cycles or asset prices. Where appropriate, those may be best addressed through fiscal, monetary and other public policy actions. It is important that buffer decisions be taken after an assessment of as much of the relevant prevailing macroeconomic, financial and supervisory information as possible, bearing in mind that the operation of the buffer may have implications for the conduct of monetary and fiscal policies. " see *ibid*

excessive or accompanied by increased system-wide risk. “

Such principles governing the operation of the Basel Committee’s Counter Cyclical Capital Buffer Proposal can be contrasted with the CEBS’ view which (in line with EFC and G20 decisions), underlies the need for counter cyclical approaches that are based on automatic rules. The need for rules which would serve as a form of “automatic stabilisers” is attributed to the following factors:<sup>69</sup>

- The importance of ensuring that deterrents exist to “overcome industry or political resistance to increase buffers during periods of economic booms and to provide a level playing field”
- The need for transparency and “clearly announced ex-ante in order to ensure that market participants are aware that banks build up buffers during periods of economic booms and run them down during recessive periods.
- CEBS’ acknowledgment that discretion is already envisaged under Pillar Two – hence the need for the existence of some rules

#### **E. Financial Stability Forum Recommendations Aimed at Mitigating Pro cyclicality**

In its report<sup>70</sup> on “Addressing Pro cyclicality in the Financial System”, the Financial Stability Forum’s recommendations to mitigate mechanisms that amplify pro cyclicality was extended to three areas:<sup>71</sup>

i) bank capital framework, ii) bank loan loss provisions as well as iii) leverage and valuation issues.

A summary of the recommendations relating to capital, as provided in the Report of the Financial Stability Forum is as follows:<sup>72</sup>

- That the Basel Committee on Banking Supervision (BCBS) should strengthen the regulatory capital framework so that the quality and level of capital in the banking system increase during strong economic conditions and can be drawn down during periods of economic and financial stress;
- That the BCBS should revise the market risk framework of Basel II to reduce the reliance on cyclical VAR-based capital estimates;
- The BCBS should supplement the risk-based capital requirement with a simple, non-risk based measure to help contain the build-up of leverage in the banking system and put a floor under the Basel II framework;
- Supervisors should use the Basel Committee's enhanced stress testing practices as a critical part of the Pillar 2 supervisory review process to validate the adequacy of banks’ capital buffers above the minimum regulatory capital requirement;
- That the BCBS should monitor the impact of the Basel II framework and make appropriate

<sup>69</sup> Committee of European Banking Supervisors, “Position Paper on a Counter Cyclical Capital Buffer” July 2009 at pages 3 and 4 <<http://www.c-ebs.org/getdoc/715bc0f9-7af9-47d9-98a8-778a4d20a880/CEBS-position-paper-on-a-countercyclical-capital-b.aspx>>

<sup>70</sup> “Report of the Financial Stability Forum on Addressing Pro cyclicality in the Financial System” [http://www.financialstabilityboard.org/publications/r\\_0904a.pdf](http://www.financialstabilityboard.org/publications/r_0904a.pdf)

<sup>71</sup> Accompanying Document to the Proposal for a Directive of the European Parliament and of the Council amending Capital Requirements Directive on trading book, securitisation issues and remuneration policies [http://ec.europa.eu/internal\\_market/bank/docs/regecapital/com2009/impact\\_assesment\\_en.pdf](http://ec.europa.eu/internal_market/bank/docs/regecapital/com2009/impact_assesment_en.pdf) page 46 of 47

<sup>72</sup> See “Report of the Financial Stability Forum on Addressing Pro cyclicality in the Financial System” at pages 2 and 3 [http://www.financialstabilityboard.org/publications/r\\_0904a.pdf](http://www.financialstabilityboard.org/publications/r_0904a.pdf)

adjustments to dampen excessive cyclicalities of the minimum capital requirements;

- That the BCBS carry out regular assessments of the risk coverage of the capital framework in relation to financial developments and banks' evolving risk profiles and make timely enhancements.

## **F. Conclusion**

In its attempt to adopt “a building block approach” which would organise the work on pro cyclicalities – the aim of this approach being “the alignment of development of tools to address pro cyclicalities according to a specific set of objectives”, four identified objectives set out by the Basel Committee in its December 2009 Consultative Document “Strengthening the Resilience of the Banking Sector”, are as follows:<sup>73</sup>

- To dampen any excess cyclicalities of the minimum capital requirement;
- To promote more forward looking provisions;
- To conserve capital to build buffers at individual banks and the banking sector that can be used during periods of stress; and
- To achieve the broader macro prudential goal of protecting the banking sector from periods of excess credit growth.”

In accordance with the CEBS' observations, counter cyclical mechanisms should be i) bank specific, (ii) based on risk sensitive concepts - should also be compatible with the incentive structure presented by Basel II (as well as Basel III), and (iii) should not be excessively burdensome in terms of data needs and computational efforts.<sup>74</sup>

Whilst efforts taken by the Committee appear to have focussed on capital – as evidenced by its Consultative Document on Counter Cyclical Capital Buffer Proposal, more forward looking provisions – as well as provisions which are aimed at addressing losses and unforeseen problems attributed to “maturity transformation of short-term deposits into long term loans”, would be greatly welcomed.

Hannoun highlights the advantages which a forward looking provisioning model offers over that of an “incurred loss” provisioning model. In his opinion, a forward looking provisioning model encourages banks to set aside provisions in a forward looking fashion based on expected losses – as opposed to the more backward looking provisions based on incurred losses.<sup>75</sup> Furthermore, he adds that “a forward looking approach not only captures actual losses more transparently, but is also less pro cyclical than the incurred loss provisioning model which is presently being used.”<sup>76</sup>

Further, the Committee of European Banking Supervisors (CEBS) has acknowledged that tools which could be implemented as measures for mitigating cyclicalities, exist beyond those measures proposed by the Basel Committee. As a result, it has taken up initiatives in relation to measures

---

<sup>73</sup> See Basel Committee on Banking Supervision, „Consultative Document: Counter cyclical Capital Buffer Proposal“ July 2010 <http://www.bis.org/publ/bcbs172.pdf?noframes=1> at page 1

<sup>74</sup> Bank specificity would ensure that counter cyclical tools are “tailored to the peculiarities of each bank's portfolios”, risk sensitive based concepts would mitigate “perverse incentives – as well as opportunities for arbitrage”. See Committee of European Banking Supervisors, “Position Paper on a Counter Cyclical Capital Buffer” July 2009 at page 4

<sup>75</sup> See H Hannoun, „Towards a Global Financial Stability Framework“ Bank for International Settlements Publications, page 17

<sup>76</sup> *ibid*

such as dynamic provisioning and supplementary measures which include leverage ratios.<sup>77</sup>

The proposed two new liquidity requirements, namely, the Liquidity Coverage Ratio and the Net Stable Funding Ratio (NSFR), respectively serve the purposes of “ensuring that banks have adequate funding liquidity to survive one month of difficult funding conditions (the LCR), and to address the mismatches between the maturity of a bank’s assets and that of its liabilities (the NSFR).”<sup>78</sup> Whilst such liquidity requirements would help to address the critical issues arising as a result of maturity mismatches, the implementation of counter cyclical capital buffers – as well as these new liquidity requirements (LCR and NSFR) would be bolstered by introducing more forward looking provisions.

---

<sup>77</sup> Committee of European Banking Supervisors, “Position Paper on a Counter Cyclical Capital Buffer” July 2009 at page 2 <http://www.c-ebs.org/getdoc/715bc0f9-7af9-47d9-98a8-778a4d20a880/CEBS-position-paper-on-a-countercyclical-capital-b.aspx>

<sup>78</sup> See Basel Committee on Banking Supervision, “An Assessment of the Long Term Economic Impact of Stronger Capital and Liquidity Requirements” Bank for International Settlements Publications August 2010 at page 7 <<http://www.bis.org/publ/bcbs173.pdf?noframes=1>>

## REFERENCES

Accompanying Document to the Proposal for a Directive of the European Parliament and of the Council amending Capital Requirements Directive on trading book, securitisation issues and remuneration policies. <

[http://ec.europa.eu/internal\\_market/bank/docs/regcapital/com2009/impact\\_assesment\\_en.pdf](http://ec.europa.eu/internal_market/bank/docs/regcapital/com2009/impact_assesment_en.pdf) >

Basel Committee on Banking Supervision, “An Assessment of the Long Term Economic Impact of Stronger Capital and Liquidity Requirements” Bank for International Settlements Publications August 2010 <http://www.bis.org/publ/bcbs173.pdf?noframes=1>

Basel Committee on Banking Supervision, „Consultative Document: Counter cyclical Capital Buffer Proposal“ July 2010 <http://www.bis.org/publ/bcbs172.pdf?noframes=1>

Basel Committee on Banking Supervision, “Principles for Sound Liquidity Risk Management and Supervision” September 2008 <http://www.bis.org/publ/bcbs144.htm>

Borio C, “Implementing a Macro Prudential Framework : Blending Boldness and Realism” Bank for International Settlements Publications <http://www.bis.org/repofficepubl/hkimr201007.12c.pdf?noframes=1>

Brunnermeier M, Crockett A, Goodhart C, Persaud A and Shin H, “The Fundamental Principles of Financial Regulation”, *ICMB-CEPR Geneva Reports on the World Economy*, 11, 2009.

Chan Lau J, „Regulatory Capital Charges for Too-Connected-to-Fail Institutions: A Practical Proposal” [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1566443](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1566443)

Cifuentes R, Ferrucci G and Shin HS, “Liquidity Risk and Contagion” (2005) *Journal of the European Economic Association* Volume 3 at pages 556-566 <http://www.bri.org/bcbs/events/rtf04shin.pdf>

Committee of European Banking Supervisors, “Position Paper on a Counter Cyclical Capital Buffer” July 2009

<<http://www.c-ebs.org/getdoc/715bc0f9-7af9-47d9-98a8-778a4d20a880/CEBS-position-paper-on-a-countercyclical-capital-b.aspx>>

DLA Piper, The Turner Review :Key Elements of the Turner Review, DLA Piper Publications <<http://www.dlapiper.com>>

European Central Bank, “Is Basel II Pro Cyclical? A Selected Review of the Literature” *Financial Stability Review*, European Central Bank Publications December 2009

European Central Bank, “The Concept of Systemic Risk” *Financial Stability Review* December 2009 <http://www.ecb.int/pub/fsr/shared/pdf/ivbfinancialstabilityreview200912en.pdf?a3fef6891f874a3bd40cd00aef38c64f>

Financial Stability Forum, “Report of the Financial Stability Forum on “Addressing Pro cyclicality in the Financial System: Measuring and Funding Liquidity Risk” April 2009 [http://www.financialstabilityboard.org/publications/r\\_0904a.pdf](http://www.financialstabilityboard.org/publications/r_0904a.pdf)

Goodhart, Hofmann and Segoviano , “Bank Regulation and Macroeconomic Fluctuations” (2004) Oxford Review of Economic Policy, vol. 20,no. 4.

Hannoun H, „Towards a Global Financial Stability Framework“ Bank for International Settlements Publications February 2010 < <http://www.bis.org/speeches/sp100303.pdf>

Jimenez and Saurina , “Credit Cycles, Credit Risk, and Prudential Regulation” (2006) International Journal of Central Banking, vol.2, no.2.

Kashyap A, Stein J and Rajan R, “Rethinking Capital Regulation”, Jackson Hole Conference Paper, 2008.

Laeven L and Majnoni G, “ Loan Loss Provisioning and Economic Slowdown: Too Much Too Late?” (2003) Journal of Financial Intermediation Journal of Financial Intermediation (12) 178–197

Ojo M, „Social Rights and Economic Objectives: The Importance of Competition at Supra National Level „ [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1651610](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1651610)

Repullo R, Saurina J, and Trucharte C, “How to Mitigate the Pro cyclical Effects of Capital Adequacy Rules” <<http://www.eurointelligence.com/article.581+M5ff0e4ba595.0.html>>