Basel III – responses to consultative documents, vital aspects of the consultative processes and the journey culminating in the present framework (Part 1)

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BASEL III—Responses to Consultative Documents, Vital Aspects of the Consultative Processes and the Journey Culminating in the Present Framework (Part 1)

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Response to Consultative Document on Strengthening the Resilience of the Banking Sector: Proposals to Strengthen Global Capital and Liquidity Regulations

A. Introduction

The 1988 Basel Accord was adopted as a means of achieving two primary objectives namely:[1]

—"To help strengthen the soundness and stability of the international banking system. This would be facilitated where international banking organisations were encouraged to supplement their capital positions.

—To mitigate competitive inequalities"

The framework was not only oriented towards increasing the sensitivity of regulatory capital differences in risk profiles which exist within banking organisations, but was also aimed at discouraging the retention of liquid, low risk assets.[2] Furthermore, it was designed to take into express consideration, off balance sheet exposures when assessments of capital adequacy are undertaken.[3]

Ten years following the conclusion of the agreement on the 1988 Accord, a Working Party was established to evaluate the impact and achievements of the Basel Accord. Two principal issues which were taken into consideration by the Working Party were:[4] Firstly, whether some banks have been encouraged to hold higher capital ratios than would have been the case if the adoption of fixed minimum capital requirements had not occurred and, whether an increase in capital or reduction of lending has resulted in any increase in ratios. Secondly, an evaluation of the impact of fixed capital requirements on reduced risk taking by banks, in relation to capital, was also to be undertaken.

In response to the first issue, relating to whether an introduction of fixed minimum capital requirements has led to banks maintaining higher capital ratios, some studies which were undertaken, revealed that capital standards, when strictly adhered to, compelled weakly capitalised banks to consolidate their capital ratios.[5] In response to whether banks adjusted their capital ratios to comply with requirements through an increase in capital or a reduction of risk-weighted assets, research revealed that banks responded to pressures stemming from capital ratios, in a way which they perceived to be most cost effective.[6] Results obtained in response to an evaluation of the impact of capital requirements on risk taking were inconclusive.[7] The data available for purposes of measuring bank risk taking, were not only limited, but also complicated the task of making an evaluation thereof.[8]

Other issues which were difficult to evaluate included whether an introduction of minimum capital requirements for banks were detrimental to their competitiveness and whether the Basel Accord facilitated competitive inequalities amongst banks.[9] These evaluative difficulties, respectively, were attributed firstly, to the fact that "long term competitiveness of banking" depends on a variety of factors—most of which are not connected to regulation and secondly, to the available evidence at the time—which was inconclusive—and hence, not sufficiently persuasive.[10]

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I. Amendments to the 1988 Accord

The First Consultative Paper—The Three Pillar Model

In June 1999, as a means of replacing the 1988 Basel Accord, the first consultative paper (on a new capital adequacy framework) was issued by the Basel Committee on Banking Supervision. The First Consultative Paper introduced the "three pillar" model which comprises of "the minimum capital requirements"—that attempt to consolidate the rules established in the 1988 Accord, "supervisory review" and "market discipline"—"as a lever to strengthen disclosure and encourage safe and sound banking practices".[11] Whilst acknowledging that the 1988 Accord had "helped to strengthen the soundness and stability of the international banking system and enhanced competitive equality among internationally active banks", it was added that the new framework provided by the first consultative paper was "designed to better align regulatory capital requirements to underlying risks and to recognise the improvements to risk measurement[12] and control."

One of the flaws inherent in the 1988 Basel Accord was namely, the fact that it rewarded risky lending since it required banks to set aside the same amount of capital against loans to shaky borrowers as against those with better credits.[13] Apart from the fact that capital requirements were just reasonably related to bank's risk taking, the credit exposure requirement was the same regardless of the credit rating of the borrower.[14] Furthermore, the capital requirement for credit exposure often depended on the exposure's legal form—for instance, an on-balance sheet loan was generally subject to a higher capital requirement than an off-balance sheet to the same borrower.[15] In addition to such insensitivity to risk, another problem which resulted from Basel 2 was the unwillingness of banks to invest in better risk management systems.

II. Capital Arbitrage

A general criticism of Basel I relates to the fact that it promoted capital arbitrage. This is attributed to its wide risk categories which provide banks with the liberty to "arbitrage between their economic assessment of risk and the regulatory capital requirements."[16] "Regulatory capital arbitrage" involves the practice by banks of "using securitisation to alter the profile of their book and may produce the effect of making the bank's capital ratios appear inflated.[17] Such a practice justifies the extension of regulation to the securities markets—rather than being merely confined to the field of banking.

Four principal types of identified capital arbitrage include:[18]cherry picking, securitisation with partial recourse, remote origination and indirect credit.

III. Basel II

Some of the key factors which instigated the introduction of Basel 2 include:[19]

"Changes in the structure of capital markets—resulting in the need for the incorporation of increased competitiveness of credit markets in capital requirements

The need for measures which would facilitate the eradication of inefficiencies in lending markets

Explosive debt levels which were generated during the economic upturn."

Under Basel II, and in response to the fact that the measurement of minimum capital was previously based on a general assessment of risk dispersion which did not correspond to specific circumstances of individual institutions, credit institutions will be required to retain more capital if required. Under Pillar 1, the definition of capital and minimum capital coefficient remain unchanged—however, credit institutions will be required to retain more capital if their individual risk situation so demands.[20] Further advancements under Basel II are illustrated in the areas of risk measurements. The measurement methods for credit risk are more sophisticated than was previously the case. For the first time, a means of measuring operational risk has been set out.[21] Under Pillar One, credit and market risk are supplemented by operational risk—which is to be corroborated by capital.[22]

B. Basel Committee's Proposals to Strengthen Global Capital and Liquidity Regulations

I. Objectives of the Basel Committee's Proposals to Strengthen Global Capital and Liquidity Regulations[23]

"As well as strengthening global capital and liquidity regulations (which would ultimately facilitate a more resilient banking sector), the Basel Committee's reforms are aimed towards improving the banking sector's ability to absorb shocks arising from financial and economic stress—hence mitigating spill over risks from the financial sector to the real economy.

The Committee is also striving towards the improvement of risk management and governance as well as strengthen banks' transparency and disclosures."

II. *Key elements of the Basel Committee's proposals*

The quality, consistency, and transparency of capital base will be raised to ensure that large, internationally active banks are in a better position to absorb losses on both a going concern and gone concern basis. (For example, under the current Basel Committee standard, banks could hold as little as 2% common equity to risk-based assets, before the application of key regulatory adjustments).

—As well as recommending an increase in the quality, consistency and transparency of capital base[24], the Basel Committee's recognition of the fact that "insufficient detail on the components of capital"[25] render "accurate assessment of its quality or a meaning comparison with other banks difficult", infers its acknowledgement of the importance attributed to enhanced disclosures. Furthermore, the increased importance attached to the role of central counter parties in efforts aimed at reducing systemic risks should also facilitate the process of achieving greater and more enhanced disclosures.

The risk coverage of the capital framework will be strengthened. In addition to the trading book and securitisation reforms announced in July 2009, the Committee proposes the consolidation of the capital requirements for counterparty credit risk exposures arising from derivatives and securities financing activities. These enhancements are aimed at strengthening the resilience of individual banking institutions and reducing the risk of shocks being transmitted from one institution to another through the derivatives and financing channel. Consolidated counterparty capital requirements should increase incentives to transfer OTC derivative exposures to central counterparties and exchanges.

However there is also a limit to what the capital framework could address. As highlighted by the recent crisis, capital requirements on their own, were insufficient in addressing liquidity and funding problems which arose during the crisis. The importance of enhanced disclosures is also reflected and embodied within the Committee's second objective in relation to its proposal to strengthen the resilience of the banking sector, that is, its endeavours "to improve risk management and governance as well as strengthen banks' transparency and disclosures."

As a result of the inability of bank capital adequacy requirements, on their own, to address funding and liquidity problems[26], the need to focus on Pillar 3 of Basel II, namely, market discipline, is becoming more apparent. There is growing justification for greater measures aimed at extending capital rules to the securities markets. This not only arises from increased conglomeration and globalisation—which increases risks attributed to systemic contagion, but also the fact that "the globalisation of financial markets has made it possible for investors and capital seeking companies to switch to lightly regulated or completely unregulated markets."[27] Furthermore, it is not only argued that „the fact that many banks in a number of countries have chosen to securitise assets is probably largely due to the capital requirements imposed on them", but also that present rules do not „explicitly cover risks other than credit and market risk."[28]

The engagement of market participants in the corporate reporting process, a process which would consequently enhance market discipline, constitutes a fundamental means whereby greater measures aimed at facilitating prudential supervision, could be extended to the securities markets. Through Pillar 3, market participants like credit agencies can determine the levels of capital retained by banks—hence their potential to rectify or exacerbate pro cyclical effects resulting from Pillars 1 and 2. The challenges encountered by Pillars 1 and 2 in addressing credit risk is reflected by problems identified with pro cyclicality, which are attributed to banks' extremely sensitive internal credit risk models, and the level of capital buffers which should be retained under Pillar Two. Such issues justify the need to give greater prominence to Pillar 3.

As a result of the influence and potential of market participants in determining capital levels, such market participants are able to assist regulators in managing more effectively, the impact of systemic risks which occur when lending criteria is tightened owing to Basel

II's procyclical effects. Regulators are able to respond and to manage with greater efficiency, systemic risks to the financial system during periods when firms which are highly leveraged become reluctant to lend. This being particularly the case when such firms decide to cut back on lending activities, and the decisions of such firms cannot be justified in situations where such firms' credit risk models are extremely sensitive—hence the level of capital being retained is actually much higher than minimum regulatory Basel capital requirements.[29]

The European Central Bank's report on "Credit Default Swaps and Counter Party Risk" identifies asymmetrical information as constituting a challenge for non-dealer market participants since in its view, price information is currently limited, as dealer prices are typically set on a bilateral basis and are not available to non-dealers.[30] Furthermore, the Report also identifies the role played by credit default swaps in the recent financial crises, highlights the contribution of counter risk management in the collapse of Bear Stearns and Lehman Brothers, and also the challenges relating to the management of counter party risk exposures which arise from Credit Default Swaps (CDSs) and other ("over the counter") OTC derivatives.[31]

Furthermore, the ECB recently highlighted that "no disclosure requirements currently exist within the IASB accounting standards with respect to the main counterparts for derivative transactions." It also states that "added disclosures for large counter parties and those that exceed certain thresholds would be useful in order to enable market participants to better assess their counterparty[32] risk and the potential for systemic spill over effects."

The Basel Committee will introduce a leverage ratio as a supplementary measure to the Basel II risk based framework with a view to changing to a Pillar 1 treatment based on appropriate review and calibration. This should help to contain the build up of excessive leverage in the banking system, introduce additional safeguards against attempts to "game" the risk based requirements, and help address model risk. In order to ensure comparability, the details of the leverage ratio are to be harmonised internationally.—making full adjustments for residual accounting differences.

The Committee will introduce a series of measures aimed at promoting the build up of capital buffers during good times—which could be drawn upon during periods of stress. A counter cyclical capital framework will contribute to a more stable banking system which will help dampen, instead of amplify, economic and financial shocks. In addition the Committee will be promoting a more forward looking provisioning which is based on expected losses, and which captures actual losses with greater transparency and which is also less pro cyclical than the present model (the "incurred loss" provisioning model).

As was highlighted under the introductory section, the promotion of financial stability through more risk sensitive capital requirements, constitutes one of Basel II's primary objectives.[33] 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.[34] 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"[35]—hence resulting in capital requirements which fluctuate over the cycle. Other identified[36] consequential effects include the fact that fluctuations in such capital requirements may result in credit institutions raising their capital during periods when its is costly 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."[37]

According to the Financial Stability Forum (FSF), an earlier recognition of loan losses, which could have been facilitated by relevant disclosures about loan loss provisioning, could have reduced pro cyclical effects which occurred during the recent crisis.[38] Not only does the FSF propose that amendments be made to the Basel II framework—amendments which are aimed at reducing banks' disincentives to increase their level of provisions for loan losses, it is also of the opinion that measures aimed at improving market discipline could also help in reducing procyclicality and diversity.[39] Furthermore, incentives which would encourage banks to retain liquidity could be introduced—however , such incentives should be granted whilst striving to comply with the aims and objectives of Basel—particularly those aimed at enhancing a regulatory framework which is more aligned with economic and regulatory capital. As acknowledged by the Basel Committee, „certain incentives which assume the form of capital reductions are considered to impose minimum operational standards in recognition that poor management of operational risks (including legal risks) could render such risk mitigants of effectively little or no value and that although partial mitigation is rewarded, banks will be required to hold capital against residual risks". Hence incentives should also adequately account for situations where poor management systems may operate in institutions which are supposed to have risk mitigants.

As well as drawing attention to the fact that capital buffers may not actually mitigate the cyclical effects of bank regulation,[40] regulators are also advised to give due consideration to the effects of risk weights on bank portfolio behaviour when implementing regulations.

As its fifth proposal, a global minimum liquidity standard for internationally active banks is to be introduced by the Committee. This will include a 30 day liquidity coverage ratio requirement which is underpinned by a longer term structural liquidity ratio. The framework will also incorporate a common set of monitoring metrics to assist supervisors in their analysis and identification of risk trends. both at the bank and system wide level. Such standards and monitoring metrics will serve to supplement the Basel Committee's Principles for Sound Liquidity Risk Management and Supervision.

III. Other points highlighted by the Committee

The review of the need for additional capital, liquidity or other supervisory measures aimed at reducing externalities generated by systemically important institutions.

Recognition that severity of the economic and financial crisis is attributed to the fact that excessive on- and off-balance sheet leverage had been accumulated by banking sectors of many countries whilst many banks were retaining insufficient liquidity buffers. Consequences resulting from this include the inability of the banking system to absorb the resulting systemic trading and credit losses . Further, the banking system was unable to manage the "re intermediation" of large off balance exposures which had accumulated.

Aggravation of the crisis owing to pro cyclical effects and the interconnectedness of systemic institutions—such interconnectedness being triggered by a range of complex transactions.

Systemic risks and the central role assumed by banks in relation to liquidity serves as greater

justification for regulation with respect to banks. "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."[41]

In relation to the securities markets, information asymmetry appears to constitute a greater basis for regulation. However, the existence of information asymmetry within the banking[42]sector has the potential to generate systemic effects within the banking sector—consequences whose effects, it could be said, could have greater repercussions than if such were to originate from within the securities markets.

The link between liquidity and systemic risks as illustrated in the ECB's Financial Stability Review, is attributed to the "destruction of specific knowledge[43] which banks have about their borrowers and the reduction of the common pool of liquidity."[44] The importance of the link between liquidity risks and systemic risks within the banking sector is highlighted by the consequences attributed to the reluctance of banks to retain liquidity—given the cost of holding liquidity.[45] The consequential shortfalls of liquidity as reflected by on and off balance sheet maturity mismatches accentuates the importance of the role assumed by central banks in the funding of bank balance sheets.[46]

1. Mitigating the Procyclical Effects of Basel II

According to a report,[47] the two principal solutions which have been endorsed by the Turner Review and the DeLarosiere Report, and which are considered to have the potential to reduce pro cyclical effects[48] induced by the CRD and Basel II, include: 1) The requirement that banks "hold bigger 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 procyclical 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."[49]

Other mechanisms provided under the CRD as means of mitigating pro cyclicality within the capital requirements framework include:[50]

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 procyclical 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).

2. *Financial Stability Forum Recommendations Aimed at Mitigating Procyclicality*

In its report[51] on "Addressing Procyclicality in the Financial System", the Financial Stability Forum's recommendations to mitigate mechanisms that amplify procyclicality was extended to three areas:[52]

(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:[53]

> "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 adjustments to dampen excessive cyclicality 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."

3. *Risk Management and Governance*

"Stress testing is an important risk management tool—particularly for counter party risk management."[54]

According to the Basel Committee,[55] " as public disclosure increases certainty in the market, improves transparency, facilitates valuation, and strengthens market discipline, it is important that banks publicly disclose information on a regular basis that enables market participants to make informed decisions about the soundness of their liquidity risk management framework and liquidity position." The involvement of market participants in the process whereby the Committee strives to facilitate market discipline through the development of "a set of disclosure requirements which will allow such market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes, and hence capital adequacy of an institution"[56] constitutes a vital means whereby effective corporate governance could be facilitated.

Recent reports have revealed the lack of knowledge demonstrated by financial institutions in relation to risks involved when engaged with "businesses and structured credit products."[57] The fact that banks "did not adhere to the fundamental tenets of sound financial judgement and prudent risk management" was also highlighted.[58]

Greater efforts have been undertaken to involve market participants by encouraging them to assess a bank's risk profile. Such proactive efforts are more desirable than "allowing markets to evolve and decide."[59] As identified by the Basel Committee, "improvements in risk management must evolve to keep pace with rapid financial innovation.[60] Furthermore, it states that " this is particularly relevant for participants in evolving and rapidly growing businesses.[61] Innovation has increased the complexity and potential illiquidity of structured credit products—which in turn, could make such products not only more difficult to value and hedge, but also lead to inadvertent increases in overall risk."[62] "Further, the increased growth of complex investor specific products may result in thin markets that are illiquid—which could expose a bank to large losses in times of stress, if the associated risks are not well understood and managed in a timely and effective manner. Stress tests have been identified as means whereby investors' uncertainty about the quality of bank balance sheets, could be eliminated.[63]

The Committee's acknowledgement of negative incentives arising from the use of external ratings to determine regulatory capital requirements and proposals to mitigate these incentives [64] is well—founded—however, regulators will also be able to manage, with greater ability, 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.[65] The Annex to Pro cyclicality in the Accompanying Document amending the Capital Requirements Directive[66] 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.

Further as rightly acknowledged by the Committee, "recent experience has shown that banks' internal credit models have not performed well. Permitting banks to use their own internal models to estimate the capital requirements for securitisation exposures could increase pressure to permit the use of such models in Basel II more broadly. Thus, while there have been concerns expressed about the use of external ratings under the Basel II framework, including that reliance on external ratings could undermine incentives to conduct independent internal assessments of the credit quality of exposures, the removal of external ratings from the Basel II framework could raise additional issues for determining regulatory capital requirements."[67]

C. Conclusion

As well as the inability of bank capital adequacy requirements, on their own, to address funding and liquidity problems, the need for greater focus on Pillar 3 of Basel II, namely, market discipline, and growing justification for greater measures aimed at extending capital rules to the securities markets, are factors which are becoming more apparent.

Even though markets should be allowed to evolve, checks and controls should exist to ensure that such market activities are effectively managed and controlled. Management information systems (MIS) and banks' credit risk models should be flexible (and not overly sensitive) in order to adapt to the evolving market whilst providing for some element of control. The Basel Committee furthermore, acknowledges the role assumed by management information systems and risk management processes in assisting the bank "to identify and aggregate similar risk exposures across the firm, including legal entities, and asset types (eg loans, derivatives and structured products)."[68]

The operation of risk mitigants in bank institutions does not justify a reduction in the capital levels to be retained by such banks—since banks operating with risk mitigants could still be considered inefficient operators of their management information systems (MIS), internal control systems, and risk management processes. The fact that banks possess risk mitigants does not necessarily imply that they are complying with Basel Core Principles for effective supervision (particularly Core Principles 7 and 17). Core Principle 7 not only stipulates that "banks and banking groups satisfy supervisory requirements of a comprehensive management process, ensure that this identifies, evaluates, monitors and controls or mitigates all material risks and assesses their overall capital adequacy in relation to their risk profile, but that such processes correspond to the size and complexity of the institution." Certain incentives which assume the form of capital reductions are considered by the Basel Committee to "impose minimum operational standards in recognition that poor management of operational risks (including legal risks) could render such risk mitigants of effectively little or no value and that although partial mitigation is rewarded, banks will be required to hold capital against residual risks".

Information disclosure should be encouraged for several reasons, amongst which include the fact that imperfect information is considered to be a cause of market failure—which "reduces the maximisation potential of regulatory competition", and also because disclosure requirements would contribute to the reduction of risks which could be generated when granting reduced capital level rewards to banks who may have poor management systems.

Response to Consultative Document—International Framework For Liquidity Risk Measurement, Standards and Monitoring

A. Introduction

The Basel Committee's recent focus is reflected through its goals of not only intensifying the "resilience of internationally active banks to liquidity stresses", but also intensifying international harmonisation of liquidity risk supervision. These efforts are aimed at consolidating recent work which culminated in the issue of the Principles for Sound Liquidity Risk Management and Supervision.[69]

As part of measures aimed at facilitating "further consolidation and promotion of consistency in international liquidity risk supervision", and in response to the "inaccurate and ineffective management of liquidity risk"—such ineffective management being a prominent feature of the financial crisis, the Basel Committee has developed a minimum set of monitoring tools to be used in the "ongoing monitoring of the liquidity risk exposures of cross border institutions and in communicating these exposures amongst home and host supervisors."[70]

This paper is structured in accordance with identified components which are considered to be essential to the successful implementation of the (two fold) topics of discussion of this paper, namely, monitoring and liquidity risk measurements. The importance of successfully communicating results obtained from monitoring and measuring such risks, and the role of corporate governance in ensuring such effective communication, constitutes a recurring theme throughout this paper. The identified components are as follows: (i) Corporate governance (ii) Internal controls (iii) Disclosure (iv) Management of risk (v) Substance over form (vi) Transparency.

As well as highlighting the interdependence of these components, the paper also aims to accentuate the importance of individual components. Whilst no hierarchy of importance is assigned to these components, corporate governance and internal controls are two components which are analysed in greater depth (than other components). Furthermore, corporate governance could be accorded a status of greater importance than internal controls having regard to the fact that whilst internal controls relate to a very vital control aspect of an organisation, corporate governance relates to all processes—be it decision making, control, production, performance, within a company/bank.

Disclosure and transparency embody the same goals, whilst the effective management and measurement of risks, and liquidity risks in particular, are aims which the internal control function and management should strive to achieve. The theme "substance over form" draws attention to creative accounting practices and the need for greater emphasis on principles based regulation. Creative accounting and "window dressing" of figures in the financial statements are ever recurring issues arising from corporate collapses—as also recently highlighted by the recent crises which involved Lehman Brothers.

Whilst the danger of formalism lies in the exercise of "creative compliance",[71] inherent problems of anti formalism are considered to include:[72]

- The fact that citizens have the right to know exactly what is prohibited in advance of behaviour rather than in retrospect
- That broad rules are imprecise and over inclusive
- That anti formalism could result in ineffective control—where it is impossible to implement

Principles based regulation (PBR) is more advantageous than a rules based approach—owing to the fact that off balance[73] sheet debt could result from the direct application of rules—without being able to consider the substance of the transaction and because the implemented standards do not allow such consideration. As its secondary argument[74], this paper will seek to demonstrate that detailed rules could still operate within a system of principles based regulation—whilst enabling a consideration of the substance of the transactions which are involved.

Regulatory standards implemented by the Basel Committee in its recent document[75] provide for "jurisdiction-specific conditions"—for example, the percentage of potential run-off of retail deposits which is partially dependent on the structure of a jurisdiction's deposit insurance scheme."[76] Furthermore, the Committee highlights that "in these cases, the parameters should be transparent and clearly outlined in the regulations of each jurisdiction."[77] It also adds that this would provide clarity both within the jurisdiction as well as across borders concerning the precise parameters that the banks are capturing in these metrics, and that there was need for public disclosures in respect of regulatory standards.[78]

Good corporate governance would "provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders."[79] The dual faceted aspects of corporate governance relate not only to the accountability of management to shareholders, but also to the supervision and monitoring of management performance. Good corporate governance should facilitate effective monitoring, effective management of internal controls and risks, effective disclosure and transparency.

In considering the topics of discussion, namely, liquidity risk measurements and monitoring, this paper will commence with a section dedicated to liquidity risk (and risk measurements), along with developments which have triggered the need for particular monitoring tools—both in response to global developments and with particular reference to the increasing prominence of liquidity risks.

The ever growing prominence and importance of liquidity in prudential supervision constitutes a vital reason which justifies the need for a prudential supervisory framework which does not merely (and excessively) rely on capital adequacy requirements within such a framework.

Some arguments which revolve around the inadequacies of capital adequacy standards include the fact that:[80]

> "Capital ratios may be of limited value as indicators of actual risk since reported capital positions do not reflect the real causes of most bank failures (the real causes of bank failures being fraud or fast depletion of the banks' resources). The international minimum ration of eight percent lacks any theoretical justification. Risk related measurement of bank assets is not only deeply flawed, but also triggers substantial distortions in the relative demand for bank assets. Since banks are in direct competition with investment firms, so far as securities activities are concerned, the imposition of capital burdens on banks erodes their ability to compete."

Paragraph 56 of the Basel Committee on Banking Supervision's Principles for Sound Liquidity Risk Management and Supervision states that

> "A bank should have a reliable management information system designed to provide the board of directors, senior management and other appropriate personnel with timely and forward-looking information on the liquidity position of the bank. The management information system should have the ability to calculate liquidity positions in all of the currencies in which the bank conducts business—both on a subsidiary/branch basis in all jurisdictions in which the bank is active and on an aggregate group basis. It should capture all sources of liquidity risk, including contingent risks and the related triggers and those arising from new activities, and have the ability to deliver more granular and time sensitive information during stress events. To effectively manage and monitor its net funding requirements, a bank should have the ability to calculate liquidity positions on an intraday basis, on a day-to-day basis for the shorter time horizons, and over a series of more distant time periods thereafter. The management information system should be used in day-to-day liquidity risk management to monitor

compliance with the bank's established policies, procedures and limits."[81]

B. 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.[82] 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.[83] In order to consolidate on the Basel Committee for Banking Supervision's *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.[84]

The Principles for Sound Liquidity Risk Management and Supervision of September 2008 are aimed at providing "consistent supervisory expectations" on principal elements such as "board and senior management oversight; the establishment of policies and risk tolerance; the use of liquidity risk management tools such as comprehensive cash flow forecasting, limits and liquidity scenario stress testing; and the maintenance of a sufficient cushion of high quality liquid assets to address contingent liquidity needs."[85]

The three aspects to pro cyclicality[86]—as highlighted in the Impact Assessment Document amending the Capital Requirements Directive, have the potential to trigger a chain reaction. Starting with remuneration schemes, the impact of these on management incentives, could have a positive or negative effect on bank regulations (such as Basel II or the CRD). Such regulations could then mitigate or exacerbate pro cyclical effects—depending on the effectiveness of capital adequacy rules.A positive effect of such rules would reduce the tendency of banks to cut back on lending during economic "busts" whilst incentives to retain liquidity would be increased—hence reducing the likelihood of the occurrence of maturity mismatches.

The link between liquidity and systemic risks as illustrated in the ECB's Financial Stability Review, is attributed to the "destruction of specific knowledge[87] which banks have about their borrowers and the reduction of the common pool of liquidity."[88] The importance of the link between liquidity risks and systemic risks within the banking sector is highlighted by the consequences attributed to the reluctance of banks to retain liquidity—given the cost of holding liquidity.[89] The consequential shortfalls of liquidity as reflected by on and off balance sheet maturity mismatches accentuates the importance of the role assumed by central banks in the funding of bank balance sheets.[90]

The link between liquidity and systemic risks is also accentuated under paragraph 77 of the BCBS *Principles for Sound Liquidity Risk Management and Supervision* of September 2008. Principle 8 states that:

"A bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems."

Paragraph 77[91] elaborates on this by highlighting the reasons why "intraday liquidity management" constitutes an important component of a bank's "broader liquidity management strategy." It goes on to state that a bank's failure to manage intraday liquidity effectively could result in its inability to meet payment obligations as they fall due,—hence generating consequences, not only for its own liquidity position, but also that of other parties. It illustrates how this could occur in two ways, namely:

"The fact that that counter parties may view the failure to settle payments when expected, as a sign of financial weakness—which in turn could result not only in payments to the bank being delayed or withheld, but also in further aggravation of liquidity pressures.

It also could leave counterparties unexpectedly short of funds, impair those counterparties' ability to meet payment obligations, and disrupt the smooth functioning of payment and settlement systems. Given the interdependencies that exist among systems, a bank's failure to meet certain critical payments could lead to liquidity dislocations that cascade quickly across many systems and institutions. If risk controls are overwhelmed, these dislocations could alter many banks' intraday or overnight funding needs, including their demands for central bank credit, and potentially affect conditions in money markets. The delay of other less critical payments also might cause other institutions to postpone their own payments, cause many banks to face increased uncertainty about their overnight funding needs and potentially increase the impact of any operational outages."

Liquidity is considered to be "highly procyclical, growing in good times and drying up in times of stress."[92] During the build up to the present crisis, banks and other financial institutions had an incentive to minimise the cost of holding liquidity.[93] Given the fact that liquidity could also be pro cyclical and given its role in the recent crisis, perhaps four dimensions to pro cyclicality should have been introduced in the Impact Assessment Document[94] amending the Capital Requirements Directive—incorporating liquidity as a fourth heading.

The growing importance of formalisation within the bank regulatory framework is also attributed to the gaps which exist within a discretionary based system of bank supervision—as was revealed in the aftermath of Baring Plc's collapse. The recent crisis has also highlighted the need for formal risk assessment models—as demonstrated by the demise of Lehman Brothers where the failures of auditors to detect balance sheet irregularities (owing to creative accounting practices) was brought to light.

The formal framework for the measurement of capital adequacy at European Community level, as exemplified by the International Convergence of Capital Measurements and Capital Standards(Revised Framework), namely Basel 2, is to be commended, not only because of "the need for a consistent framework for the reporting and comparative analysis of bank capital positions, the demand of regulated institutions for transparency and equality in the application of regulatory standards", but also because of "the exigencies of the international convergence process—which requires the transparent and uniform implementation of harmonised rules by the regulators of every country."[95]

As part of measures aimed at consolidating and "promoting consistency in international liquidity risk supervision", and in response to the "inaccurate and ineffective management of liquidity risk"—as was prominently highlighted during the recent financial crisis, the Basel Committee has developed a "minimum set of monitoring tools to be used in the ongoing monitoring of the liquidity risk exposures of cross border institutions and in communicating these exposures amongst home and host supervisors."[96]

The Liquidity Coverage Ratio[97] and the Net Stable Funding Ratio[98] are two regulatory standards for liquidity risk which serve the purpose of attaining the objectives of "promoting short-term resiliency of the liquidity risk profile of institutions" (by ensuring that they have adequate high quality liquid resources to survive during periods of extreme stress which last for about one month) and "promoting resiliency over longer-term periods" (through the creation of additional incentives for banks to fund their activities with more stable sources of funding on an ongoing basis).[99]

In addition to the above-mentioned standards, the Basel Committee recommends that supervisors also implement designated monitoring tools on a consistent basis. Such monitoring tools, along with the standards, are intended to provide supervisors with information which should aid their assessment of liquidity risks attributed to a particular bank.[100] These monitoring tools include: Contractual Maturity Mismatch, Concentration of Funding, Available Unencumbered Assets and market—related monitoring tools.[101]

C. Disclosure

As well as the need for greater focus on liquidity risk, there is also the need for greater reliance on disclosure requirements. This will be facilitated through an effective monitoring process whereby identified risks are effectively communicated across all levels of management.

Enhanced transparency does not only have the potential to "improve an understanding of the mechanism at play in structured finance", but also facilitate the identification of risks and ensure that risks are well controlled. [102] Risky loans which were "repackaged and sold to institutional investors"—some of whom did not fully comprehend the implications of the transactions they were engaged in (or about to be engaged in), and the inherent risks associated with those transactions, are considered to be contributory factors to the 2007/09 Financial Crisis.[103]

Regulators will be able to gain greater access to vital information which is required for effective performance of their functions where duties are imposed on third parties, such as external auditors, in relation to the disclosure of information which is necessary and required for the efficient performance of the regulators' activities—as opposed to a right to report.

The relationship between supervisory authorities and the external auditors of a credit institution and the duties of these auditors was identified as an important lesson from the BCCI case.[104] Because of auditors' access to financial undertakings' accounts and other essential documents and information, they assume a vital position in the overall supervisory process. An analysis of BCCI revealed that measures, additional to those already existing, needed to be taken to eliminate the opaqueness of financial structures and strengthen cooperation between all bodies or persons involved in the supervision of such complex financial structures.[105]

As a result, the Basel Committee for Banking Supervision issued "minimum standards" which lay down rules for effective consolidated supervision and cooperation between supervisory authorities. This was not only aimed at strengthening international co operation between prudential supervisors, but also to improve transparency of financial, and in particular, group structures.

D. The Importance of Effective Management of Internal Controls

"Banks identified as having control problems have been characterised by organisational structures in which responsibilities were not clearly defined: hence (1) No senior management monitored the performance of activities (carried out within the organisation) closely to observe unusual activities (2) No senior management had a comprehensive understanding of the activities and how profits were being generated."[106]

The collapse of Barings in1995 which was attributed not only to lack of quality and employee deception, also brought the issue of internal controls and management systems to the fore.[107] Barings collapse illustrated weaknesses in the bank regulator's supervisory regime—which included flaws within its evaluation of internal controls at banks, flaws inherent in the internal communication within levels of management of the bank regulator, and the weaknesses in the way the bank regulator's existing rules were applied.[108]

The Basel Committee categorised into five groups, types of control breakdowns which are characteristic of ailing banks and these are as follows:[109]

Lack of adequate management oversight and accountability, and failure to develop a strong control culture within the bank[110]

Inadequate recognition and assessment of the risk of certain banking activities, whether on or off balance sheet

The absence or failure of key control structures and activities such as segregation of duties, approvals, verifications, reconciliations and reviews of operating performance

Inadequate communication of information between levels of management within the bank—particularly the communication of information to higher ranked officials (senior management)

Inadequate or ineffective audit programmes and monitoring activities

E. The Contribution of Corporate Governance to an Effective System of Internal Controls

Various corporate collapses have resulted in changes to financial reporting, corporate governance and audit.[111] The emphasis on internal controls and risk management emerged from realisation that due to change in the business environment, even effective safeguards may be insufficient to eliminate all possibilities of failure.[112]

Keasy and Wright define corporate governance as the "examination of the structures and processes associated with production, decision making, control and so on within an organisation."[113] The two aspects of governance are considered to be i) Supervision and monitoring of management performance (the enterprise aspect) and ii) ensuring accountability of management to shareholders and other stakeholders (the accountability aspect).[114]

The feedback effects of corporate governance into the liquidity and systemic risk mechanisms are illustrated thus:

> "Poor corporate governance may contribute to bank failures, which could pose significant public costs and consequences due to their potential impact on any applicable deposit insurance systems and the possibility of broader macro economic implications, such as contagion risk and impact on payments systems. Furthermore, poor corporate governance could result in markets losing confidence in the ability of a bank to properly manage its assets and liabilities, including deposits, which could in turn, trigger a bank run or liquidity crisis."[115]

As well as a robust system of internal controls (which incorporates internal and external audit functions), the implementation of i) corporate values, codes of conduct, standards of appropriate behaviour and the system used in ensuring compliance with these, ii) a clear allocation of responsibilities and decision making authorities, iii) the establishment of a system which would guarantee efficient interaction and collaboration between the board of directors, senior management and auditors, and iv) special monitoring of risk exposures where conflicts of interest are likely to be high, are considered to be crucial to ensuring that sound corporate governance operates within an organisation.[116]

Furthermore, sound corporate governance practices are considered to require " appropriate and effective legal, regulatory and institutional foundations."[117] Even though factors such as the system of business laws and accounting standards which prevail in respective jurisdictions are considered to be factors which operate beyond the scope of banking supervision, the inclusion of four important forms of oversight are considered sufficient not only in ensuring that appropriate checks and balances exist, but that an effective system of corporate governance can be achieved.[118] The types of oversight include:

> "(1) oversight by the board of directors or supervisory board; (2) oversight by individuals not involved in the day-to-day running of the various business areas; (3) direct line supervision of different business areas; and (4) independent risk management, compliance and audit functions. In addition, it is important that key personnel are fit and proper for their jobs."[119]

The contribution and the role assumed by senior management in ensuring that internal control systems are effectively managed, is reflected through the Principles for the Assessment of Internal Control Systems.[120] The importance of monitoring and the rectification of deficiencies within internal control systems is reflected under principles 10-12.[121] Principle 10 highlights the importance of monitoring on a frequent and ongoing basis whilst principles 11 and 12 draw attention to the importance of effective collaboration and communication between highly trained competent staff, the board of directors, audit committees and senior management.[122]

According to paragraph 84 of the BCBS *Principles for Sound Liquidity Risk Management andSupervision* of September 2008, internal coordination across business lines is vital towards ensuring that effective controls over liquidity outflows are achieved.[123] In relation to examples of actions which supervisors could adopt , as means of responding to banks with liquidity risk management weaknesses or excessive liquidity risk, that which "requires actions by the bank to strengthen its management of liquidity risk through improvements in internal policies, controls or reporting to senior management and the board" is considered to have the greatest potential to address deficiencies in a bank's liquidity risk management process or liquidity position.[124]

As observed by the Basel Committee,[125] "most banks that have experienced losses from internal control problems did not effectively monitor their internal control systems. Often the systems did not have the necessary built-in ongoing monitoring processes and the separate evaluations performed were either not adequate or were not acted upon appropriately by management."[126] Furthermore it highlights that such failures to monitor adequately commence with a "failure to consider and react to day-to-day information provided to line management and other personnel indicating unusual activity—such as exceeded exposure limits, customer accounts in proprietary business activities or lack of current financial statements from borrowers."[127]

In implementing the regulatory standards and monitoring tools which are highlighted by the Basel Committee in its consultative document,[128] a supervisory approach which not incorporates the expertise of external auditors, but which is also more inclined to an on site system based approach is recommended. In supporting this view, reference is made to lessons learned from the collapse of Barings where it was noted by the Treasury Committee that "it was due to the discretionary basis of the supervisor's approach to supervision that there was limited ability to detect events at Barings."[129]

The regulatory standards and monitoring tools set out in the BIS Consultative Document[130] are therefore supported on the basis of their ability to facilitate a more formal approach to supervision which would reduce the scope for flexibility (scope for creative accounting practices and "window dressing" of balance sheet figures) where an on—site approach to supervision is implemented.

F. On site and Off-site Supervision

Principle 21 of the Basel Core Principles for Effective Supervision, *Supervisory Reporting* states that "Supervisors must have a means of collecting, reviewing and analysing prudential reports and statistical returns from banks on both a solo and a consolidated basis, and a means of independent verification of these reports, through either on-site examinations or use of external experts."

According to Vieten[131] bank regulation has followed two trends, namely: supervision has become increasingly formalized and dependent on quantitative tools, and secondly, regulatory duties are being pushed down a regulatory pyramid to include external auditors and to enlist the resources of regulatees.

External auditors, even though they do not constitute by definition, part of a banking organisation, immensely impact the quality of internal controls "through their audit activities—which also includes discussions with management and recommendations for improvement to internal controls."[132] "External auditors provide an important feedback on the effectiveness of the internal control system."[133]

Off site supervision is synonymous with monitoring and involves the regulator's use of external auditors' expertise. It also involves the receipt and analysis of financial statements and statistical returns submitted to the supervisors. Off site monitoring often has the benefits of being able to identify potential problems, particularly during intervals between on- site inspections, thereby providing early detection and acting as trigger for corrective action before problems become more serious.[134]

On site work is usually done by the examination staff of the bank supervisory agency or commissioned by supervisors but may be undertaken by external auditors. Furthermore, it is contended that on-site examinations are frequently implemented by banking supervisory authorities which posses the legal basis or other arrangements to direct the scope of the work carried out by external auditors.[135]

Ongoing monitoring is contrasted with separate evaluations. It is highlighted that whilst ongoing monitoring activities not only provide the advantage of "quickly detecting and correcting deficiencies in the system", but are also most effective "when the system of internal control is integrated into the operating environment and produces regular reports for review," that separate evaluations usually detect problems "only after the fact."[136] However separate evaluations also offer the advantage of providing an organisation with "fresh and comprehensive" insight into the effectiveness of monitoring activities—such activities being undertaken by staff from different departments which include the business function, financial control and internal audit.[137]

G. Monitoring Compliance and Enforcement

Principles Based Regulation

A discretionary based approach to regulation, whilst encouraging greater possibilities for regulatory capture, appears to be more congruent with principles based regulation. However it is possible to implement a system of regulation which combines increased formalised procedures and/or detailed rules—whilst giving due consideration to the substance of transactions.

"Principles provide the framework in which firms can organize their own processes to achieve the outcomes the regulator seeks—the regulator in turn, depends on firms to adopt an attitude to the regulatory regime (which is one which aims to go beyond minimal compliance with rules)."[138]

Principles based regulation is not only advantageous because it allows management of a bank or firm to take into consideration the substance of transactions, but because "principles impose outcomes to be achieved—not detailed processes for achieving them."[139] As well as being linked to meta regulation, principles based regulation facilitates a system whereby principles "communicate regulatory objectives and promote behaviour which will achieve those objectives."[140]

Principles based regulation, thus, would not only reduce the scope for "creative compliance"—since the substance of transactions should be considered by management, but also has the benefit of providing a more flexible and responsive approach to regulation as the subsequent section will seek to demonstrate.

Principles based regulation is considered to comprise of 3 elements, namely:[141]

- A particular type of rule
- A focus on outcomes and
- A focus on senior management responsibility in ensuring these outcomes are achieved

Furthermore, three forms of principles based regulation, namely: "formal principles based regulation; substantive principles based regulation and full principles based regulation", have been suggested.[142] For the purposes of this paper, focus will be restricted to substantive principles based regulation.

Five classes of regulatory practices which could characterise substantive principles based regulation include:[143]

> "The particular mode of interpretation- that is, the approach taken in the interpretative process; particular enforcement style; an orientation to outcomes; a relocation of responsibilities for working out the practical application of the provisions; and an explicit and developed reliance on management based regulation."

The effectiveness of rules and regulation is dependent, not only on the monitoring processes and tools used in such processes, but also the effectiveness of the enforcement of those rules. For this reason, focus will be dedicated to the second characteristic of substantive principles based regulation– which is indeed a "critical" and defining feature of principles based regulation.

According to Black, the adoption of the "responsive" enforcement approach is justified on the basis that "neither negotiative approaches nor deterrence based approaches are effective on their own and that instead, regulators should implement a mixture of both, that is, first negotiate, then if the firm still does not deliver substantive compliance, regulators should gradually move up the enforcement pyramid, applying sanctions of increasing severity until it does."[144] She adds weight to Baldwin's argument[145] by stating that "those who know what they are meant to be doing and are generally inclined to do it ("the well intentioned and well informed") , are best dealt with using a negotiating strategy—which is easier to do using principles. In contrast, those who do not know what they are meant to be doing and even if they did, would not be inclined to do it ("the ill intentioned and ill informed"), are best dealt with using a strategy that escalates rapidly up the enforcement pyramid."[146]

This "responsive" approach, it is further argued, "is not contingent on any particular rule design and can operate in systems of (i) highly detailed rules, (ii) where the rules are mainly principles, (iii) where there is a combination of both."[147]

Having considered the forms, attributes and benefits of principles based regulation, the weaknesses inherent in this type of regulation are worth mentioning. Firstly, in relation to the all important aim of ensuring accountability—which should be fostered if adequate monitoring procedures are observed and carried out by the responsible levels of authority. Principles based regulation could serve as a hindrance towards ensuring accountability. In this respect, reference will be made to the seven paradoxes of principles based regulation—which are as follows:[148]

"(i) The interpretative paradox : Different interpretations attributed to principles could result in imprecise and general terms being accorded very specific interpretations—even though principles are supposed to offer flexibility (where these are characterised by imprecise terms).

(ii) The communicative paradox: Principles, whilst facilitating communication, could also hinder such communication. The paradox is attributed to the distinction between legal use of language and its ordinary use.

(iii) The compliance paradox: Principles provide scope for flexibility in compliance—however this could result in conservative and/or uniform behaviour by regulated firms.

(iv) The supervisory and enforcement paradox: Principles require enforcement to provide them with credibility—however over-enforcement could result in their demise.

(v) The internal management paradox: Principles based regulation has the potential to offer required flexibility for internal control systems to develop—and also the potential to overload them.

(vi) Ethical paradox

(vii) Trust paradox

A detailed consideration of the above mentioned paradoxes highlights the importance of having a clear understanding of the form of principles based regulation which is applicable to a particular bank or business. As highlighted under the substantive principles based regulation, "those who know what they are meant to be doing and are generally inclined to do it (the well intentioned and well informed), are best dealt with using a negotiating strategy." Hence a more draconian mode of enforcement , that is tougher sanctions, would not be best suited in facilitating compliance by such groups—such sanctions being better reserved for the "ill informed and ill intentioned." Furthermore, a tough punitive regime is one in which principles are unlikely to survive—even though detailed rules could still be implemented under principles based regulation.[149]

Hence the desired level of compliance required within a firm is best achieved having regard to the organisational structure which exists within an organisation—and to whether (as a result of a such determination), that organisation could be considered a suitable candidate for the application of principles based regulation. Clear delegation and segregation of duties within an organisation would not only promote accountability, but would also facilitate a system where principles could be applied and also facilitate monitoring procedures. Consequently, monitoring would also facilitate accountability—since frequent reviews and discussions between management and appropriate personnel should increase an understanding of the activities carried out by particular divisions within the organisation.

H. CONCLUSION

Monitoring fosters transparency, which in turn fosters accountability. Monitoring of key risks, as well as periodic evaluations by the business lines and internal audit constitute a vital element of corporate governance—hence the overall effectiveness of a bank's internal controls should be monitored on an ongoing and frequent[150] basis.[151]

Since it is possible for detailed rules to operate under principles based regulation—and since detailed rules constitute a vital element in ensuring that clear delegation and segregation of responsibilities exist within an organisation, it could be said that the level of accountability derived under principles based regulation is dependent on the form of principles based regulation. Under the formal principles based regulation, the level of accountability derived is likely to be greater than that derived under full principles based regulation. As highlighted within the relevant sections of this paper, an approach which combines negotiating and punitive strategies is always considered best—owing to the level of flexibility offered by such an approach. However the organisational structure, culture and several other factors require consideration before substantive principles based regulation is judged to be the optimal approach.

In accordance with Principle 13 of the Principles for the Assessment of Internal Control Systems, "supervisors should require that all banks, regardless of size, have an effective system of internal controls that is consistent with the nature, complexity, and risk inherent in their on- and- off balance sheet activities and that corresponds to the bank's environment and conditions." Furthermore, "in those instances where supervisors determine that a bank's internal control system is not adequate or effective for that bank's specific risk profile, they should take appropriate action." In accordance with Core Principle 17 of the Basel Core Principles for Effective Bank Supervision, *Internal controls and audit*, specific attention should given to ensure the existence of: (i)"clear arrangements for delegating authority and responsibility; (ii) separation of the functions that involve committing the bank, paying away its funds, and accounting for its assets and liabilities."

Where clear delegation of authority, segregation of responsibilities are not in place, the most appropriate and obvious action might be to initiate a more deterrence based approach—rather than a negotiative based approach. However, reference must be made to factors highlighted under the first paragraph of this conclusive section.

Increased formalisation under principles based regulation would still allow for a consideration of the substance of transactions—whilst allowing for flexibility in terms of its application. With regards to its application, this implies its suitability as the appropriate mode of regulation—based on the level of accountability it could provide an organization with and whether an organization, because of its structure and culture, should consider applying it at all.

Notes

1. "Capital Requirements and Bank Behaviour: The Impact of the Basle Accord" Basle Committee on Banking Supervision Working Papers No 1 April 1999 at page 1 <*http://www.bis.org/publ/bcbs_wp1.pdf?noframes=1*>
2. *ibid*
3. *ibid*
4. *ibid*
5. *Ibid* at page 2
6. *Ibid* at page 3
7. *ibid*
8. *ibid*
9. *Ibid* at page 4
10. *Ibid* at pages 4 and 5
11. *See* ,Consultative Paper on a New Capital Adequacy Framework" June 1999 < *http://www.bis.org/press/p990603.htm*>
12. *See* remarks of the chairman of the Task Force on the Future of Capital regulation; *ibid*
13. "Basle bust" *The Economist* April 13th 2000
14. M Saidenberg and T Schuermann, The New Basel Capital Accord and Questions for Research (2003) Wharton Financial Institutions Center Working Paper 2003 at page 4
15. *ibid*
16. 'Capital Requirements and Bank Behaviour: The Impact of the Basel Accord' Basel Committee on Banking Supervision Working Papers April 1999 at page 21
17. *ibid*; Bank's capital ratio may appear inflated "relative to the riskiness of the remaining exposure", *see ibid*
18. *See ibid* at pages 22-24
19. *See* A Saunders and L Allen, *Credit Risk Measurement: New Approaches to Value at Risk and Other Paradigms* (2002) Second Edition Wiley Publishers at page 24
20. *See* 'Basel II: Minimum Capital Requirements' *http://www.bundesbank.de/bankenaufsicht/bankenaufsicht_basel_saeule1.en.php*
21. *ibid*
22. *ibid*
23. *See* Basel Committee on Banking Supervision, 'Strengthening the Resilience of the Banking Sector' Consultative Document, Bank for International Settlements Publications December 2009 at page 1
24. *See* first key element of the proposals being issued by the Basel Committee.
25. *See* Consultative Document of the Basel Committee for Banking Supervision, "Strengthening the Resilience of the Banking Sector" December 2009 at page 13
26. *See* M Ojo, 'Extending the Scope of Prudential Supervision: Regulatory Developments During and Beyond the 'Effective' Periods of the Post BCCI and the Capital Requirements Directives' , Journal of Advanced Research in Law and Economics July 2010.
27. *See* Deutsche Bundesbank , „Securities Market Regulation: International Approaches" Deutsche Bundesbank Monthly Report January 2006 at page 41
28. Regulation, it is further argued, ,,may also impact on the relationship between banks and the securities market as a source of finance. So long as the banks are required to set aside eight percent capital for loans to the financially soundest companies, direct borrowing in securities markets will probably be a cheaper form of funding for these companies". *See* „Basel Committee's Proposal for a New Capital Adequacy Framework"*http://www.norges-bank.no/templates/article____15120.aspx* For further information on this *see* M Ojo, „The Impact of Capital and Disclosure Requirements on Risks and Risk Taking Incentives" (2010)
29. For further information on this, *see* M Ojo, ' Basel II and the Capital Requirements Directive: Responding to the 2008/09 Financial Crisis' (2009) *http://ssrn.com/abstract=1475189*
30. "Credit Default Swaps and Counter Party Risk" European Central Bank 2009 at page 62
31. *ibid* at page 36
32. Private sector financial institutions
33. 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*> at page 22 of 47
34. *See ibid* at page 23 of 47

35. *See* Annex on Proc cyclicality, 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*> at page 46 of 47

36. 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

37. *See* "Is Basel II Pro Cyclical? A Selected Review of the Literature" Financial Stability Review December 2009 at page 150

38. Report of the Financial Stability Forum on "Addressing Pro cyclicality in the Financial System: Measuring and Funding Liquidity Risk" at pages 20 and 22

39. *ibid* at pages 21 and 22

40. *See* P Agénor and L Pereira da Silva , „Cyclical Effects of Bank Capital Requirements with Imperfect Credit Markets" World Bank Policy Research Paper 5067 at page 36.They illustrate through their model that capital buffers, by lowering deposit rates, are actually expansionary and that hence, "if capital buffers are increased during an expansion, with the initial objective of being countercyclical, they may actually turn out to be procyclical." This, in their opinion, is an important conclusion, given the prevailing view that "countercyclical regulatory requirements may be a way to reduce the build up of systemic risks:if the signaling effects of capital buffers are important, "leaning against the wind" may not reduce the amplitude of the financial-business cycle." For more information on this, also *see* M Ojo, „The Impact of Capital and Disclosure Requirements on Risks and Risk Taking Incentives" (2010)

41. Report of the Financial Stability Forum on "Addressing Pro cyclicality in the Financial System: Measuring and Funding Liquidity Risk" *http://www.financialstabilityboard.org/publications/r_0904a.pdf* at page 24

42. According to the Bundesbank, „the economics of information, which is widely applicable to the financial markets, therefore eases the rigorous assumptions about information requirements and market perfection." *See* Deutsche Bundesbank , „Securities Market Regulation: International Approaches" Deutsche Bundesbank Monthly Report January 2006 at page 36

43. Since specific knowledge which banks possess about their borrowers is considered to be a factor which determines the illiquidity of bank loans; *see* "The Concept of Systemic Risk" ECB Financial Stability Review December 2009 at page 137<*http://www.ecb.int/pub/fsr/shared/pdf/ivbfinancialstabilityreview200912en.pdf?05d3164914c6a14bb13522* 2b5c3894fa>

44. *ibid*; According to the Review, the reduction in the common pool of liquidity also has the potential to trigger the failure of banks and could consequently lead to a devaluation of illiquid bank assets and further aggravation of problems within the banking sector.

45. Report of the Financial Stability Forum on "Addressing Pro cyclicality in the Financial System: Measuring and Funding Liquidity Risk" *http://www.financialstabilityboard.org/publications/r_0904a.pdf* at page 24

46. *ibid*

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

48. Exacerbated strains on bank capital is the term used to denote procyclicality ; *see ibid* International Accounting Standards are also considered to have had a pro-cyclical impact. It is stated that "in 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*

49. R Repullo, J Saurina, and Carlos Trucharte, "How to Mitigate the Procyclical Effects of Capital Adequacy Rules" <*http://www.eurointelligence.com/article.581+M5ff0e4ba595.0.html*>

50. *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* Page 46 of 47

51. "Report of the Financial Stability Forum on Addressing Pro cyclicality in the Financial System" http://www.financialstabilityboard.org/publications/r_0904a.pdf

52. 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* page 46 of 47

53. *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*

54. *See* Bank for International Settlements, Consultative Document, Strengthening the Resilience of the Banking Sector" at page 48

55. *See* Bank for International Settlements „Proposed Enhancements to the Basel II Framework: Revisions to Pillar 3" (Market Discipline)" Consultative Document , Basel Committee on Banking Supervision paragraph 73 at page 23

56. *See*, Enhancements to the Basel II Framework" Basel Committee on Banking Supervision publications July 2009 at page 29 *http://www.bis.org/publ/bcbs157.pdf* and <*http://www.bis.org/publ/bcbs157.pdf?noframes=1*>

57. *Ibid* at page 10

58. *ibid*

59. *See* B Arrunada, "The Provision of Non Audit Services by Auditors: Let the Market Evolve and Decide" 1999 International Review of Law and Economics at page 13. According to Arrunada, regulators should not only focus on policies which would improve transparency of information—hence enhancing

market incentives, but should strive towards fostering a greater level of competition. Markets, in his opinion, should be the "driving force behind the evolution of the industry"—since regulators are not well equipped with the necessary knowledge and proper incentives which are required for defining an efficient market framework.

60. *See* „Enhancements to the Basel II Framework" Basel Committee on Banking Supervision publications July 2009 at page 12

61. *ibid*

62. *ibid*

63. *See* European Commission, "Economic Crisis in Europe: Causes, Consequences and Responses" Section 3.2.1' Crisis Resolution Policies: Stress Testing of Banks" <*http://ec.europa.eu/economy_finance/publications/publication15887_en.pdf*> It is also highlighted in the report that stress tests could serve as "decisive tools in accomplishing this task since they provide information about banks' resilience and ability to absorb possible shocks."

64. *See* Consultative Document of the Basel Committee for Banking Supervision, "Strengthening the Resilience of the Banking Sector" December 2009at page 55

65. *See* M Ojo, ' 'Extending the Scope of Prudential Supervision: Regulatory Developments During and Beyond the 'Effective' Periods of the Post BCCI and the Capital Requirements Directives' (January 2010), forthcoming in the Journal of Advanced Research in Law and Economics.

66. 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*> *See* page 46 of 47

67. *See* Consultative Document of the Basel Committee for Banking Supervision, "Strengthening the Resilience of the Banking Sector" December 2009 paragraph 185 at page 56; for further information on the strengths and weaknesses of banks' internal credit models, also *see* M Ojo, 'The Responsive Approach by the Basel Committee (on Banking Supervision) to Regulation: Meta Risk Regulation, the Internal Ratings Based Approaches and the Advanced Measurement Approaches (2009)*http://mpra.ub.uni-muenchen.de/16752/* and *http://ssrn.com/abstract=1447446*

68. *See* „Enhancements to the Basel II Framework" Basel Committee on Banking Supervision publications July 2009 paragraph 29 < *http://www.bis.org/publ/bcbs157.pdf?noframes=1*> at page 16.The Basel Committee attributes the increased likelihood that different sectors of a bank are exposed to a common set of products, risk factors or counter parties, to the growth of market based intermediation.

69. *See* Basel Committee on Banking Supervision, Consultative Document „International Framework for Liquidity Risk Measurement, Standards and Monitoring < *http://www.bis.org/publ/bcbs165.htm*> at page 2

70. *ibid*

71. Creative compliance being the use of rules to escape control without actually violating those rules

72. V Beattie, S Fearnley and R Brandt *Behind Closed Doors: What Company Audit is Really About*

(ICAEW) 2001 at page 11

73. Off balance sheet items are obligations which are contingent liabilities of a company/bank—and which as a result, do not appear on its balance sheet. Formal distinction between on and off balance sheet items, even though sometimes detailed, depend to an extent on the degree of judgement which is exercised by management.

74. The primary theme being the importance of successfully communicating results obtained from monitoring and measuring such risks, and the role of corporate governance in ensuring such effective communication.

75. *See* Consultative Document, „International Framework for Liquidity Risk Measurement, Standards and Monitoring" at page 2

76. *ibid*

77. *ibid*

78. *ibid*

79. *See* Basel Committee on Banking Supervision "Enhancing Corporate Governance for Banking Organisations" February 2006 at page 4

80. C Hadjiemmanuil, *Banking Regulation and the Bank of England* Lloyds of London Press 1995 at page 210

81. Basel Committee on Banking Supervision, Principles for Sound Liquidity Risk Management and Supervision Sept 2008 at page 17 <http://www.bis.org/publ/bcbs144.htm> Furthermore, paragraph 57 highlights the importance of a consensus between senior management in relation to a set of reporting criteria aimed at facilitating liquidity risk monitoring. Such reporting criteria should specify ""the scope, manner and frequency of reporting for various recipients (such as the board, senior management, asset—liability committee) and the parties responsible for preparing the reports." "Reporting of risk measures should be done on a frequent basis (eg daily reporting for those responsible for managing liquidity risk, and at each board meeting during normal times, with reporting increasing in times of stress) and should compare current liquidity exposures to established limits to identify any emerging pressures and limit breaches. Breaches in liquidity risk limits should be reported and thresholds and reporting guidelines should be specified for escalation to higher levels of management, the board and supervisory authorities."

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

83. *ibid*

84. "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 cyclicality in the Financial System: Measuring and Funding Liquidity Risk" *http://www.financialstabilityboard.org/publications/r_0904a.pdf* at page 24

85. *See* Basel Committee on Banking Supervision, Consultative Document "International Framework for Liquidity Risk, Measurement Standards and Monitoring" Bank for International Settlements Publications at page 1

86. Namely: systemic aspects, bank regulations and remuneration policies

87. Since specific knowledge which banks possess about their borrowers is considered to be a factor which determines the illiquidity of bank loans; *see* "The Concept of Systemic Risk" ECB Financial Stability Review December 2009 at page 137<http://www.ecb.int/pub/fsr/shared/pdf/ivbfinancialstabilityreview200912en.pdf?05d3164914c6a14bb13522

2b5c3894fa>

88. *ibid*; According to the Review, the reduction in the common pool of liquidity also has the potential to trigger the failure of banks and could consequently lead to a devaluation of illiquid bank assets and further aggravation of problems within the banking sector.

89. Report of the Financial Stability Forum on "Addressing Pro cyclicality in the Financial System: Measuring and Funding Liquidity Risk" *http://www.financialstabilityboard.org/publications/r_0904a.pdf* at page 24

90. *ibid*

91. Principles for Sound Liquidity Risk Management and Supervision Sept 2008 at pages 20 and 21

92. *See* Report of the Financial Stability Forum on Addressing Pro cyclicality in the Financial System "Measuring and Funding Liquidity Risk" at page 24

93. *ibid*

94. *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*> *See* page 44–46

95. *See* C Hadjiemmanuil, *Banking Regulation and the Bank of England* Lloyds of London Press 1995 at pages 208–209

96. *See* Bank for International Settlements, Consultative Document "International Framework for Liquidity Risk, Measurement Standards and Monitoring" at page 2

97. This ratio „identifies the amount of unencumbered, high quality liquid assets an institution holds that can be used to offset the net cash outflows it would encounter under an acute short-term stress scenario by supervisors." *ibid* at page 3

98. This ratio measures "the amount of longer-term, stable sources of funding utilised by an institution relative to the liquidity profiles of the assets being funded and the potential for contingent calls on funding liquidity arising from off-balance sheet commitments and obligations." *ibid*

99. *ibid*

100. *ibid* at page 25

101. *ibid*

102. *See* speech by C McCreevy European Commissioner for Internal Market an Services at the European Parliament 11 Sept 2007 *http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/07/520&format=HTML&aged=l&language=EN&guiLanguage=en*

103. *ibid*

104. JF Mogg, ,The Bank of England and the Development of Internal Control Systems' in R Kinsella (ed) *Internal Controls in Banking* (Oak Tree Press Dublin 1995) at page 31

105. *ibid* at page 28

106. *See* "Framework for Internal Control Systems in Banking Organisations", Basel Committee for Banking Supervision 1998 at page 27

107. Whilst it is contended by some that the problems attributed to Barings focussed round the lack of controls, the system of internal controls which operated were also considered by the regulator at the time (the Bank of England) to be informal but effective. *See* Barings Bank and International Regulation Volume 1 (12 December 1006) at page xiii

108. *See* Treasury Committee, Barings Bank and International Regulation Report No 1 1996 page xv

109. *See* Framework for Internal Control Systems in Banking Organisations, Basel Committee for Banking Supervision 1998 at pages 6 and 7

110. In order to evaluate the quality of internal controls, supervisors could adopt a number of approaches which include i) the evaluation of the work of the internal audit department of the bank (though review of its working papers—including the methodology implemented in identifying, measuring, monitoring and controlling risks). ii) If supervisors are satisfied with the quality of the internal audit department's work, they could use the reports of internal auditors as a primary mechanism for the identification of control problems in the bank (or for identifying areas of potential risk—areas which have not been recently reviewed by the auditors). iii)Further some supervisors may use a self-assessment process in which management reviews the internal controls on a business by business basis whilst iv)other supervisors may require periodic external audits of key areas (given that supervisor defines the scope). Supervisors may ultimately combine one or more of the techniques highlighted under (i)—(iv) with own on site reviews or examinations of internal controls. *See ibid* at pages 22 and 23

111. House of Commons Select Committee on Treasury, Minutes of Evidence submitted by the Institute of Chartered Accountants in England and Wales as part of its inquiry into the arrangements for financial regulation of public limited companies at page 17

112. *ibid*

113. *See* K Keasy and M Wright, 'Issues in Corporate Accountability and Governance: An Editorial' Accounting and Business Research, 23 (91A) at page 291. OECD principles define corporate governance as involving " a set of relationships between a company's management, its board, its shareholders, and other stakeholders."

114. V Beattie, S Fearnley and R Brandt *Behind Closed Doors: What Company Audit is Really About* (ICAEW) 2001 at page 26

115. *See* Basel Committee on Banking Supervision "Enhancing Corporate Governance for Banking Organisations" February 2006 at page 4

116. Basel Committee for Banking Supervision, " Enhancing Corporate Governance for Banking Organisations" 2006 at page 4

117. *ibid* at page 5

118. *ibid*

119. *ibid*

120. *See* particularly Principles 1-3 which relate to management oversight and the control culture; *ibid* at pages 2 and 3

121. *ibid* at page 4

122. *ibid* at pages 4 and 5

123. Paragraph 16, as well as other sections which address and relate to internal and risk controls in particular, are considered to have the greatest importance out of all the sections within the BCBS *Principles for Sound Liquidity Risk Management and Supervision* of September 2008

124. *See* paragraph 142 of BCBS Principles for Sound Liquidity Risk Management and Supervision of September 2008

125. *See* "Monitoring Activities and Correcting Deficiencies" Framework for Internal Controls in Banking Organisations, Basel Committee on Banking Supervision 1998 at page 30

126. *See ibid* at paragraph 10

127. *See ibid* at paragraph 11

128. *See* Consultative Document ‚International Framework For Liquidity Risk Measurement, Standards and Monitoring December 2009

129. Treasury Committee Barings Bank and International Regulation Report No 1 (1996) at page xiv

130. Consultative Document ‚International Framework For Liquidity Risk Measurement, Standards and Monitoring December 2009

131. *See* HR Vieten, „Banking Regulation in Britain and Germany Compared: Capital Ratios, External Audit and Internal Controls" (1997) at page 18

132. Framework for Internal Control Systems in Banking Organisations, page 25 Basel Committee on Banking Supervision 1998

133. *ibid*

134. *See* „The Relationship between Banking Supervisors and Banks' External Auditors January 2002 paragraph 40 page 11 <*http://www.bis.org/publ/bcbs87.pdf?noframes=1*>

135. *See* Framework for Internal Control Systems in Banking Organisations, Basel Committee for Banking Supervision 1998 at page 23

136. *ibid* at page 20.

137. *ibid*

138. *See* J Black, „Forms and Paradoxes of Principles Based Regulation" LSE Law, Society and Economy Working Papers 13/2008 (2008) at page 9 *http://www.lse.ac.uk/collections/law/wps/wps.htm* and http://www.ssrn.com/abstarct=1267722

139. *ibid*

140. *ibid* at page 16

141. *See* J Black, „Forms and Paradoxes of Principles Based Regulation" LSE Law, Society and Economy Working Papers 13/2008 (2008) at page 12

142. *ibid*

143. *ibid* at page 17

144. *See* also I Ayres and J Braithwaite, *Responsive Regulation* (1992)Oxford University Press

145. *See* R Baldwin, *Rules and Government* (1995) Oxford : Clarendon Press

146. J Black, „Forms and Paradoxes of Principles Based Regulation" LSE Law, Society and Economy Working Papers 13/2008 (2008) at page 19; She argues that "in a regime with a tough, punitive approach in which every infraction is met with a sanction, principles based regulation (PBR) would not survive—this being the case, because there is greater risk that firms will make the wrong assessment ie one with which the regulator does not agree." Under principles based regulation, she argues further, "firms are required to think through the application of the provisions to particular situations to a far greater degree than they are with respect to a detailed rule—hence the higher probability that firms would make the wrong assessment ." *See ibid* at page 18

147. J Black, „Forms and Paradoxes of Principles Based Regulation" LSE Law, Society and Economy Working Papers 13/2008 (2008) at page 19; It is further argued that "Different rule types make it easier for regulatory officials to deal with certain types of regulated firms."

148. *See ibid* at pages 25 –35

149. Refer to Formal Principles Based Regulation; *ibid* at page 12

150. "The frequency of monitoring different activities of a bank should be determined by considering the risks involved and the frequency and nature of changes occurring in the operating environment." *See* Framework for Internal Control Systems in Banking Organisations at page 20 *http://www.bis.org/publ/bcbs40.pdf*

151. *See* also Principle 10 of the Principles for the Assessment of Internal Control Systems; Framework for Internal Control Systems in Banking Organisations at page 20 *http://www.bis.org/publ/bcbs40.pdf*. "Monitoring the effectiveness of internal controls could be undertaken by personnel from several different areas, including the business function itself, financial control and internal audit. For that reason, it is important that senior management clarify which personnel are responsible for which monitoring functions." Further, "monitoring should constitute part of the daily activities of the bank—whilst including separate periodic evaluations of the overall internal control process. ";*ibid*