ABSTRACT

The Financial Crisis has not only highlighted the importance of addressing issues such as liquidity risk – it has also brought to the fore the need to focus on unregulated instruments such as hedge funds, which are of systemic importance to the financial industry. Risk is an area which, owing to its increasing significance, requires greater focus. A move to risk based strategies is evidenced by the growing popularity of risk based regulation and meta regulatory strategies. Given the presence of an unregulated hedge fund industry however, such attempts do not suffice on their own. Further, the systemic nature of risk exacerbates the problem of such unregulated institutions.

This paper aims to address complexities and challenges faced by regulators in identifying and assessing risk, problems arising from different perceptions of risk, and solutions aimed at countering problems of risk regulation. It will approach these issues through an assessment of explanations put forward to justify the growing importance of risks, well known risk theories such as cultural theory, risk society theory and governmentality theory. These theories will be considered against a background of themes such as dynamism, evolutionism, developments in science and industry, cultural attitudes to risk, and the need to be responsive and reflexive to changes which have arisen in modern society.

Theoretical models and hybrids of a responsive model of regulation such as Enforced self regulation and meta regulation, which have the potential to address the problems relating to risk will be addressed. By virtue of the pro cyclical nature of risk, the inability of Basel 2 to address risk cycles were revealed during the Northern Rock Crisis. Other flaws and deficiencies inherent in Basel 2, a form of meta regulation, will be highlighted. The relevance of internal control systems to an efficient system of regulation, the reasons for which meta regulation is not only considered to be the most responsive form of regulation, but also one which assigns central role to internal control systems will be discussed.

The contested nature of risk and the difficulties attributed to its quantification, raise questions about its ability to function effectively as a regulatory tool. If risks could be eliminated in their entirety however, then regulation would serve no purpose. This paper aims generally therefore to direct attention to those areas which could be addressed, namely institutional risks, and measures whereby such risks, even though impossible to eliminate, could be minimized.

BEYOND THE FINANCIAL CRISIS: Addressing Risk Challenges in a Changing Financial Environment

Marianne Ojo[1]

A. Introduction

Factors such as the growth of financial conglomerates and the derivatives markets, which have been facilitated by the impact of information technology and increased competition within the financial services industry, have instigated a change in the way financial regulation is carried out around the world. A realisation by countries and their financial institutions that they were at a competitive disadvantage as globalisation gained momentum, lead to ultimate liberalisation in these countries.[2]

As a result of the above mentioned global changes and developments, the benefits of financial regulation have not been realised to full potential since financial regulation also needs to evolve with changes such as the growth of financial conglomerates, social and economic changes. This has resulted in some arguments that regulation could also be detrimental.[3] The reasons for differences in opinions between those who are in favour of regulation and supervision in finance and those who are against, focus around four key issues, namely:[4] i) How financial institutions and markets work and operate in practice: This would require consideration of the domestic and global financial environment, ii) The incentive structures faced by financial firms iii) The extent of market imperfections and failures in the financial system and the power of regulation and supervision to address these , iv) the extent to which financial products and contracts are substantially different from goods and services which are not regulated to the same degree as financial institutions.

The summer of 2007 signalled the start of events which culminated in the subsequent nationalisation of Northern Rock in the UK and the demise of Merill Lynch[5] and Lehman Brothers. The unfolding of the mortgage crisis was revealed during this period and the crises deepened in 2007 and 2008 – resulting in turmoil for the global financial markets.

The Financial Crisis, with particular reference to IKB and Hypo Real Estates in Germany, also revealed declining market confidence in banks' stability.[6] This was illustrated in cases where companies assured the public that they were unlikely to be affected by the Financial Crises, whilst in actual fact there was a high probability within the near future, and indeed within a few days, that they could be exposed – owing to their status as "liquidity providers for securities arbitrage conduits or as investors in complex re-securitisations."[7] Even though the Capital Requirements Directive, through its inclusion of a section on public disclosure requirements – aimed at strengthening "market's understanding of banks' risks and capital

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1 Research Fellow, Center for European Law and Politics (ZERP), University of Bremen

2 See OECD Report on Regulatory Reform 1997 Volume 1: Sectoral Studies at page 73 -74

3 D Llewellyn 'The Economic Rationale For Financial Regulation' (1999) Financial Services Authority London Occasional Paper 1 April 1999 at page 7

4 ibid at page 5

5 Merrill Lynch was taken over by the Bank of America.

6 See "Disclosure of Securitisation Risks" COMMISSION STAFF WORKING DOCUMENT accompanying document to the Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Capital Requirements Directive on trading book, securitization issues and remuneration policies IMPACT ASSESSMENT, July 2009 at page 16

7 ibid

positions", provided for such a situation, such disclosure requirements entered into force at a period, which unfortunately, was rather late to contribute in any way in reducing the problems generated by the Financial Crisis.[8]

The central theme of this paper revolves around problems encountered through the implementation of risk as a regulatory tool. In highlighting the susceptibility of a globalised world to globalised crisis, this paper will commence with a discussion which demonstrates the impact of risk and particularly, systemic risk, in regulation. The next section of the paper will then consider explanations which have been put forward to justify why risk has become so important – particularly in regulatory and governmental circles. These explanations are attributed to: Risk as an organising principle and, the increasing embeddedness of risk in regulation –whereby the increased connection between risk and regulation is becoming more apparent. Modes whereby risks are incorporated are then considered, namely, the transformation of internal controls to risk management, a quantitative process whereby societal risks are utilised and, a "qualitative shift towards the management of institutional risks."[9]

This will then set the scene for a discussion on various risk theories such as risk society theory, cultural theory, governmentality approach to risk, and the theory of risk colonisation. One of the difficulties associated with risk, as a regulatory tool, is attributed to its contested nature and the uncertainty which is associated with it. In order to address myths surrounding the quantification and control of risks, "risks must be made auditable and governable".[10] A means of quantifying risks, whereby institutional risks constitute the focus, as regards those risks which are being quantified, is discussed. Whilst the audit risk model has its merits, its disadvantages are also considered.

The advantages of traditional regulation and means whereby its deficiencies can be addressed, are then considered in the subsequent section. Meta regulation, the regulation of self regulation[11] ,a form of regulation whose "collaborative approach to rule generation" is considered to be the most evolved approach, and reasons why it could be the most responsive form of regulation, will then constitute the topic of discussion. Basel II, an example of meta regulation, will then be introduced with particular focus on capital adequacy. As well as the vital role assumed by capital in containing risk in a banking firm, protecting deposits and equalising competition amongst banks[12], capital adequacy is considered to be fundamental to prudential supervision as its constitutes part of its foundations. Its significance to risk management and persisting problems which Basel II presents, will be considered with reference to the recent crisis, and particularly to the pro cyclical nature of risk. Having considered all these crucial topics, a conclusion which comprises efforts which have been undertaken as a means of addressing regulatory flaws which were highlighted during the recent crises and further proposals which need to be effected, will then be drawn.

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8 ibid

9 See H Rothstein, M Huber and G Gaskell, ,A Theory of Risk Colonisation: The Spiralling Regulatory Logics of Societal and Institutional Risk" (2006) Economy and Society (35)1 at page 92

10 See M Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty*2004 Demos at page 10; also see U Beck, *Risk Society – Towards a New Modernity* (London: Sage, 1992)

11 See the penultimate chapter of Christine Parker's book, C Parker *The Open Corporation: Effective Self-Regulation and Democracy.* 2002 Cambridge: Cambridge University Press

12 SeeD Quiroz Rendon ,The Formal Regulatory Approach to Banking Regulation' http://www.badellgrau.com/legalbanking.html (last visited 10 June 2009) pages 10 and 11

B. The Significance of Risk in Regulation

The rationale for financial regulation is an embodiment of two issues namely:[13]

I. The problem of systemic risk[14]:
II. The problem of asymmetric information whereby certain information is known to some people but not to others[15].

Systemic risk is referred to as the risk that the failure of one firm may affect others, resulting in the collapse of the financial system.[16] Consequences emanating from the systemic impact of the financial sector on the real economy were, once again, brought to light during the recent financial crisis, as evidenced by its impact on economic recovery.[17] Measures aimed at combating systemic risks and rejuvenating market confidence have been classified into two, namely:[18] "A first line of defence against systemic liquidity risk"[19] and "a second line of defence against systemic solvency risk."[20]

As well as reasons attributed to the rationale for financial regulation, other explanations which have been put forward to explain why risk has become central across regulatory and governmental circles are partly influenced by different approaches as to what risk is. Further explanations, mainly from socio-cultural disciplines suggest that the importance of risk derives from issues related to control, accountability, responsibility and blame in late modern society.[21]

Two well-known theoretical perspectives addressing these are termed "risk society" theory and "governmentality" theory.[22]

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[13] Speech by Howard Davies, former chairman , Financial Services Authority 'Building the FSA – Progress to Date and Priorities Ahead' Wednesday 30 September 1998 <http:// www.fsa.gov.uk> (last visited 10 June 2008)

[14] Regulation for systemic reasons is required when the social costs of the failure of financial institutions (particularly banks) exceed private costs and such potential social costs are not provided for in the decision making of the firm. Social costs could arise from systemic situations triggered by a bank run (withdrawal of deposits by depositors) which may have contagious effects on other banks. D Llewellyn 'The Economic Rationale For Financial Regulation' (Financial Services Authority London Occasional Paper 1 April 1999 p 13

[15] Ibid; Market failures include information problems, externalities and conflict of interests.

[16] P Cartwright, Bankers, *Consumers and Regulation* 2004 Hart Publishing at pg 192

[17] See JC Trichet „Remarks on the Future of European Financial Regulation and Supervision", Address by the President of the European Central Bank at the Committee of European Securities Regulators (CESR) , 23 February 2009, page 1 of 5.

[18] Ibid at page 2

[19] Instruments which fall under the first line of defence include an increase in "the size and frequency of liquidity operations, extending the list of collateral, significantly expanding balance sheets and implementing unprecedented interest rate cuts." See ibid

[20] This includes re capitalisation, guarantees and asset support schemes; see ibid.

[21] J Gray and J Hamilton *Implementing Financial Regulation* (2006) p 5; also see T Bennett 'Culture and Governmentality' in C McCarthy and J Packer (eds) *Foucault, Cultural Studies and Governmentality* 2003) State University of New York Press at page 47; M Dean, *Governmentality. Power and Rule in Modern Society* (1999) London/Thousand Oaks/New Delhi: Sage 1999 and
M Douglas, *Risk and Blame: Essays in Cultural Theory* (1992) Routledge

[22] See U Beck, *Risk Society: Towards a New Modernity* (1992) London: Sage Publications and M Foucault, 'Governmentality' in G Burchell et al (eds), *The Foucault Effect* at pages 87-104, also J Bratich, J Packer and C McCarthy *Foucault, Cultural Studies and Governmentality* (2003) State University of New York Press

C. Explanations to Why Risk Has Become So Important

I. Risk As a Strategic Organising Principle

In considering the features that make risk such a vital tool for regulation, Rothstein et al conclude that …."risk provides an organizing concept for societal decision-making under uncertainty and is a key characteristic of modernity….as regulatory systems attempt to control events that have formerly been beyond control, the process of decision-making transforms those events into risks as a way of rationally managing the limits of regulation."[23]

As well as a means of describing what constitutes the subjects of regulation and related institutional threats, risk is increasingly being perceived as a procedure for the organisation of regulatory activities.[24]

II. The Embeddedness of Risk in Regulation

The increasing connection between risk and regulation is apparent.[25] Such fact is collaborated by the transformation of internal controls to risk management.[26] It is maintained that the transformation of risk into internal controls is required for the operation of risk-based regulation, which in turn would facilitate the functioning of the risk management state.[27] According to Rothstein[28] *et al*, the incorporation of risks in regulatory processes has taken place in two ways namely: Through a quantitative process whereby risk analysis and risk management methods are increasingly being utilised in the regulation of "traditional and novel" risks, such risks being referred to as "societal risks"[29].

The second mode of incorporation involves the "qualitative shift towards the management of institutional risks".[30] There has been an increased focus on the risks of risk management.[31] Such consequence of risk management has been referred to as the "duality of risk".[32]

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[23] H Rothstein, M Huber and G Gaskell "A Theory of Risk Colonization: The Spiralling Regulatory Logics of Societal and Institutional Risk" (2006) Economy and Society (35) 1 at page 99

[24] ibid at page 97

[25] M Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty*2004 Demos at pages 50-58

[26] Also see ibid at page 24

[27] ibid

[28] H Rothstein, M Huber and G Gaskell "A Theory of Risk Colonization: The Spiralling Regulatory Logics of Societal and Institutional Risk" (2006) Economy and Society (35) 1 at page 92

[29] ibid

[30] ibid; institutional risks are implied to include risks encountered by institutions which are responsible for managing and regulating societal risks and/or legitimacy risks (to their rules and practices) - regardless of whether these institutions are state or non state institutions.

[31] ibid; See also M Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty*2004 Demos at pages 50-58 in which Power argues that reliance on internal controls may increase risk if it leads to an undermining of the knowledge of risk in other areas; despite the benefits of risk management, concerns are generated due to the fact that secondary risk management has become an accepted "organisational common sense" - reflecting the society's loss in faith in its professions and public organisations.

[32] ibid and also see C Ciborra, 'Digital Technologies and the Duality of Risk'(2004) CARR Discussion Paper No 27, CARR, LSE London

However, the ever increasing inter connectedness between risk and regulation does not mean that both perfectly correspond to one another.[33] This has given rise to compliance related issues for organisations.

Corporate governance tools are considered to be risk management strategies for the distinctive risk of failure by senior management to prevent the growth and development of risk.[34] Modern risk management strategies have arisen from new institutions involved in the collection and statistical analysis of data required for activities like the census.[35]

In his speech to the Institute of Chartered Secretaries and Administrators (ICSA) EU Corporate Governance Summit, Charles McCreevy, European Commissioner for Internal Market and Services, highlighted the fact that it was apparent that:[36]
"poor, indeed, sometimes disastrous, risk management by financial institutions was partly to blame for the current financial turmoil. Risk management should be part of the strategy of the firm, and indeed the culture of the organisation. It is the duty of senior management in financial institutions to address this and it is the role of the board to oversee it. In their respective roles, both senior management and the board need to ensure a *holistic* approach to firm-wide – and group-wide -risk management."

D. Risk Theories

I. Risk Society

The theme of evolutionism is common to various theories of 'simple' modernisation.[37] However, a different perspective is observed by Beck who views risks and unpredictability as the consequences of developments of science and industry.[38] Furthermore, he argues that no one can be brought to book for unpredictable events in the "risk society".[39] Furthermore, the ability of regulators to regulate successfully depends on the level of efficiency and coherence of "institutionally complex regulatory regimes", hence the limited ability of regulators to control societal risks.[40] In Beck's view, modernization must become reflexive and such modernization not only involves structural change, but a dynamic relationship between social structures and social agents.[41] Along with others, Beck argues that risks of late modernity differ in type and magnitude from those which previously existed.[42] Furthermore they

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[33] See B Hutter and M Power "Risk Management and Business Regulation" at page 2

[34] M Power *Organized Uncertainty: Designing A World of Risk Management* 2007 Oxford University Press at page 10

[35] ibid at page 12

[36] See http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/08/518&format=HTML&aged=0&language=EN&guiLanguage=en.

[37] See U Beck, *Risk Society: Towards a New Modernity* (1992) London: Sage Publications at page 2. Such theories range from those of Habermas to Max to Parsonian sociology.

[38] ibid at page 2

[39] ibid; In contrast to societal risks, Rothstein et al maintain that it is much easier to account for institutional risks through the transformation of behaviours and outcomes that could not be recorded previously or were considered to be acceptable. See H Rothstein, M Huber and G Gaskell 'A Theory of Risk Colonization: The Spiralling Regulatory Logics of Societal and Institutional Risk at page 96

[40] ibid at page 95

[41] ibid

[42] See H Rothstein, M Huber and G Gaskell 'A Theory of Risk Colonization: The Spiralling Regulatory Logics of Societal and Institutional Risk at page 94

maintain that, in the 'risk society' in which we now live, risks are no longer imposed from external sources but are 'manufactured' as "products of mankind's decisions, options, science, politics, industries, markets and capital."[43]

II. Cultural Theory

Cultural theorists on the other hand, argue that attitudes to risk differ according to cultural preferences.[44] However, it is argued that it is highly unlikely that cultural theory would be able to predict risk perceptions in particular situations.[45] Cultural theory proceeds with the assumption that a culture consists of persons which hold one another mutually to account. [46] There is an attempt by such persons to live at a level of being held accountable, which is identical to a level at which such a person would want to hold others accountable.[47] From this perspective, culture is ladened with political implications of mutual accountability.[48] Rather than the perception that an isolated individual would check every piece of information in such a manner devoid of prejudice or moral commitment, the person is perceived to investigate possible information "through a collectively constructed censor set to a given standard of accountability." Since assimilated knowledge or the rejection of "mere noise" is based on a criterion which considers whether the new conception or fact will consolidate the subject's preferred political scheme, in Douglas' opinion, it would be fruitless to undertake a study of risk perception without a systematic consideration of cultural preferences.[49]

III. Governmentality Approach to Risk

The "governmentality" theory is related to the work of Foucault.[50] According to his approach, risk is generally considered to be a concept which is socially produced in its entirety.[51] Furthermore, no external environment compels society to respond to risk.[52] A broader view of government, which the notion of governmentality embraces, can be found in Mitchell Dean's definition of government:

> "Government is any more or less calculated and rational activity, undertaken by a multiplicity of authorities and agencies, employing a variety of techniques and forms of knowledge, that seeks to shape conduct by working through our desires, aspirations, interests and beliefs, for definite but shifting ends and with a diverse set of relatively unpredictable consequences, effects and outcomes".[53]

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[43] Also see R Baldwin and M Cave, *Understanding Regulation: Theory, Strategy and Practice* (1999) Oxford University Press at page 141

[44] ibid at 142

[45] S Ottedal, B Moen, H Klempe and T Rundow 'Explaining Risk Perception: An evaluation of Cultural Theory' < http://www.svt.ntnu.no/psy/Torbjorn.Rundmo/Psychometric_paradigm.pdf>

[46] M Douglas 'Risk and Blame' Routlegde at page 31

[47] ibid

[48] ibid

[49] ibid at pages 31 and 32

[50] See M Foucault, 'Governmentality' in G Burchell et al (eds), *The Foucault Effect* at pages 87-104, also J Bratich, J Packer and C McCarthy *Foucault, Cultural Studies and Governmentality* (2003) State University of New York Press

[51] See J Zinn, 'Recent Developments in Sociology of Risk and Uncertainty' (2005) at page 4

[52] ibid

[53] See T Bennett 'Culture and Governmentality' in C McCarthy and J Packer (eds) *Foucault, Cultural Studies and Governmentality* 2003) State University of New York Press at page 47; M Dean, *Governmentality. Power and Rule in Modern Society* (1999) London/Thousand Oaks/New Delhi: Sage 1999 at page 11

IV. Theory of Risk Colonisation

This theory is founded on the dynamic linkage between societal and institutional risks - thereby paving the way for a new explanatory model of "contemporary regulatory development" which recommends a research schedule for the study of the separate fields of risk and regulation.[54] It is also an attempt to explain what is considered to be some of the "conceptual consequences" of efforts aimed at regulating risk.[55]

V. Criticisms of Risk Theories

Criticism which revolves round Beck's concept of risk is namely, that risk is too restricted in accounting for complexities involving governmental risk strategies and rationalities or socio cultural perceptions and responses to risk.[56] A wider approach which is in line with the concept of reflexive modernization commences with uncertainty instead of risk.[57] The distinction between risk and uncertainty is as follows: Risk is traditionally associated with probability calculation and this suggests that an event can be predicted and controlled.[58] Uncertainty however is not capable of measurement and deals with possibilities incapable of calculation which are based on guesswork and judgment.[59] It is also added that uncertainty has to be defined acknowledging the possibility of unpredictable outcomes rather than adopting an approach which aims to transform uncertainty into certainty.[60]

The functionalist view on risk, that is those works which are frequently related to those of Douglas and Wildavsky, is principally criticised for its oversimplified interpretation of quite complicated and ever changing processes of how risk is approached.[61] The 'socio-cultural' approach and 'risk culture' try to address the functionalist view on risk by targeting more complex and changing processes which involve risk in every day life.[62] One advantage of these approaches is namely, that responses to risk are generated.[63]

E. Quantification of Risks

The focus placed on the quantification of risks in various jurisdictions, varies according to the degree to which the decision making processes are subject to legal challenge and review, and whether there has been a tradition of independent regulatory agencies.[64]

In order to overcome the myths surrounding the quantification and control of risks, "risks must be made auditable and governable."[65] In the attempt to make risk auditable, the role

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54 Rothstein et al at page 107

55 ibid at page 108

56 See J Zinn, 'Recent Developments in Sociology of Risk and Uncertainty' (2005) at page 1

57 ibid, also see W Bonss, *Vom Risiko: Unsicherheit und Ungewissheit in der Moderne* (1995) Hamburg: Hamburger Edition

58 J Gray and J Hamilton, *Implementing Financial Regulation: Theory and Practice* (2006) 20

59 ibid

60 see See J Zinn, 'Recent Developments in Sociology of Risk and Uncertainty' (2005) at page 2

61 ibid at page 3

62 ibid

63 ibid

64 H Rothstein, M Huber and G Gaskell 'A Theory of Risk Colonization: The Spiralling Regulatory Logics of Societal and Institutional Risk at page 101

65 See M Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty*2004 Demos at page 10; also see U Beck, *Risk Society – Towards a New Modernity* (London: Sage, 1992)

assumed by risk management has been transformed to that which is synonymous with that of an appropriately managed organisation which is internally and externally in control of the way it "handles" uncertainty.[66]

Since societal risks are difficult to quantify, it could be argued that focus should be placed on preventing, detecting and rectifying the effects of institutional risks. Moreover, societal risks (excluding those risks attributed to "*force majeure*"), it can be argued, are consequential of the systemic effects of institutional risks. Hence the control of the source (that is, institutional risks) would be an effective way of containing the uncontrollable effects of societal risks.[67] Risk management of institutional risks, even though this generates risks (which are the consequence of an omission of other significant risks), can be undertaken using the audit risk model – especially since the assessment of risks, based on differences in perceptions[68], is so subjective.

Successful management of institutional risks is dependent on many factors, namely, accuracy – inaccurate assessments of societal risks may further exacerbate the difficulty in managing institutional risks.[69] Furthermore, methodological challenges and the degree to which other decision shaping factors are aligned the success of risk management, also contribute to the effectiveness of the management of institutional risks.[70] Even where institutional risks which emanate from the government and the judiciary are successfully managed through risk based procedures, there may still be exposure to institutional risks from external sources.[71]

The audit risk model not only requires the auditor to have an understanding of the client's business and industry, systems used in processing transactions, qualifications of personnel engaged in accounting procedures, policies related to preparation of client's financial statements but also requires that auditors have a knowledge of company's internal controls.[72]

Traditional auditing techniques involve auditors performing tests to find out the level of risks which may exist in an entity. These risks consist of three components namely: inherent risks,

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[66] M Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty*2004 Demos at page 40

[67] Whilst Power has argued that societal and institutional risk management are closely related, Rothstein et al contend that institutional risk management is stimulated by the 'residual failures of societal risk management' and that a focus on institutional risk management could also define the perception and management of societal risks. In other words, they emphasize the importance of concentrating not only on the management of societal risks, but also on the management of institutional risks. See H Rothstein, M Huber and G Gaskell 'A Theory of Risk Colonization: The Spiralling Regulatory Logics of Societal and Institutional Risk at page 103

[68] Attitudes to risk vary with individuals and may be different at different levels of an organization. "Risk attitudes or appetites may also vary across different aspects of the same risk, may in reality not correspond to any stated appetite and may change with new or better information." See M Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty*2004 Demos at pages 19 and 20. Also see B Hutter, *Risk and Regulation* (2000) Oxford: Oxford University Press

[69] H Rothstein, M Huber and G Gaskell 'A Theory of Risk Colonization: The Spiralling Regulatory Logics of Societal and Institutional Risk at page 101

[70] ibid

[71] ibid at 102

[72] 'The Audit Risk Model' <http://www.pobauditpanel.org/downloads/appendixa.pdf> at pages 175,176 (last visited 25 March 2009); also see <http://www.aicpa.org/download/members/div/auditstd/SAS107.PDF> page 5 of 20

control risks and detection risks and they all contribute to the audit risk[73]. The audit risk models is denoted by the following equation:

AR = IR * CR*DR (where AR represents audit risk, IR represents inherent risk, CR represents control risk and DR represents detection risk)

Inherent risks[74] are those risks which emanate as a result of the nature of the business entity, control risks[75] are those risks resulting from reliance on the internal controls functioning within the business whilst detection risk is the risk that the auditor would not be able to detect material misstatements during procedures aimed at detecting such.

Inherent and control risks are outside the control of auditors and since these risks are outside auditors' control, the consequence is that the higher the assessed levels of inherent and control risk, the lower the detection risk must be if the desired overall level of audit risk is to be achieved.[76] The level of detection risk can be varied through auditors increasing substantive procedures, that is statistical sampling.[77] Substantive procedures are usually costly and auditors who place reliance on the internal controls in order to support the reduced use of substantive procedures need to show that the assessed level of control risk is low.[78] This is done through the performance of tests of controls. Where internal control weaknesses are discovered, this does not necessarily mean that more tests of control should be performed. Where performance of such tests of control would not be potentially cost-effective, the use of predominantly substantive procedures is recommended straightaway.[79] A preliminary determination of the control risk is required where there is potential for cost effectiveness. If this pre determined risk is high, then a predominantly substantive approach is recommended. If the control risk is low, then test of the internal controls are to be performed to confirm the preliminary assessment of control risk. Following confirmation of a low pre determined level of control risk, a reduced level of substantive procedures can then be carried out.[80]

Materiality is provided for in the audit risk model as auditors are not required to account for every misstatement within a financial statement – only material misstatements need be accounted for.[81] Furthermore, the nature, timing and extent of audit procedures is vital to the model. Auditors are also required to ascertain “fraud risks” which take into consideration qualities of both inherent and control risk.[82]

Whilst according to some, the audit risk model has been relatively successful, its focus on internal use has been said to contribute to the existence of inherent problems in external

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73 This is defined as the probability that an auditor may unknowingly fail to adjust an opinion which is materially misstated in the financial statements; U.S. Gen. Accounting Office, Report on Financial Statement Restatements: Trends, Market Impacts, Regulatory Responses and Remaining Challenges (2002) page p 38

74 Inherent risk can also be defined as the susceptibility of an account balance to material error; ibid p 38

75 Risk that error could occur and not be prevented or detected by internal controls

76 See G Cosserat, 'Audit Strategy' 1 February 1999, <http://www.accaglobal.com/publications/studentaccountant/49870>

77 ibid

78 ibid

79 ibid

80 See G Cosserat, 'Audit Strategy' 1 February 1999, <http://www.accaglobal.com/publications/studentaccountant/49870>

81 Also see ‘The Audit Risk Model’ <http://www.pobauditpanel.org/downloads/appendixa.pdf > at page 177

82 ibid

procedures.[83] This was soon highlighted in a study on expectations gap, following its introduction.[84]

F. Traditional Regulation

I. Advantages of Traditional Regulation

Although command and control regulation has been criticized for its rigidity, such rigidity having contributed to economic inefficiency, Latin suggests that this approach has advantages.[85] Furthermore, these advantages extend beyond those advantages identified with more tailored and flexible instruments.[86]

II. Addressing the Deficiencies of Traditional Regulation

"Responsive regulation is distinguished (from other strategies of market governance) both in what triggers a regulatory response and what the regulatory response will be".[87] Ayres and Braithwaite also propose that regulation be responsive to industry structure – since different structures will be conducive to different degrees and forms of regulation.[88] According to Baldwin and Black[89], in order to be "really responsive", regulators are required to be responsive - not only to the level of compliance of the regulatee, but also to the frameworks within the firms – both operating and cognitive, to the environment which encompasses the regulatory regime, which is broader and institutional, to the different ways whereby regulatory tools and strategies operate, to the performance of the regime and ultimately, to changes which exist within each of the mentioned elements. Regulation, it is argued, is responsive when it knows its regulatees and its environments, when it is capable of coherently organizing different and new regulatory modes of reasoning, when it is sensitive to performance and when it recognizes what its changing challenges are.[90] Baldwin and Black's opinion of what is really responsive would have to take into consideration the growing impact of risk.[91]

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[83] TJ Andersen, 'Perspectives on Strategic Risk Management' (2006) Copenhagen Business School Press Denmark at pages 95 and 96

[84] ibid

[85] N Gunningham and P Grabosky *Smart Regulation: Designing Environmental Policy* (1998) Oxford : Clarendon Press at page 42

[86] ibid; also see H Latin 'Ideal versus Real Regulatory Efficiency: Implementation of Uniform Standards and "Fine Tuning" Reforms' (1985) 37 Stanford Law Review at page 1271

[87] Ayres and Braithwaite, *Responsive Regulation* p 4

[88] ibid

[89] R Baldwin and J Black, 'Really Responsive Regulation' LSE Law, Society and Economy Working Papers 15/2007 at pages 3 and 4

[90] ibid

[91] See M Ojo 'The Growing Importance of Risk in Regulation' Munich Personal Archive (2009) < http://mpra.ub.uni-muenchen.de/13723/>

G. Responsive Regulation v Risk Based Regulation

Theoretically, regulatory regimes can become more responsive to the self-organisation of regulatees regardless of whether such regulates are banks or local government service providers.[92] Risk based regulation, in Power's view, is considered to be a blue print for the "risk management state."[93]

In comparison to responsive regulation, risk based regulation is relatively new.[94] It has been adopted by several regulatory agencies as a means of organising resource allocation, managing limited resources and concentrating those resources where they are needed most – for example, in cases involving banks with weak internal controls.[95] Such an approach is strategic and goal oriented at the same time.[96] The link between risk and strategy is vital in advertising new regulatory approaches and risk management and would also improve communication between the regulator and the regulated.[97]

Responsive regulation is distinguished from risk based regulation since the latter focuses on analysis and targeting rather than a process of "responsive escalation".[98] Whilst the framework of risk based approaches not only enables regulators to link enforcement-related activities to the achievement of objectives, but also allows for the targeting of resources in such a way which prioritises the highest risks, the main controversial issue surrounding risk based regulation relates to inspection.

Furthermore, risk based regulation is an embodiment of the idea that regulatory failures are possible – in contrast with the concept of zero tolerance.[99] Whilst some events can be classified as being of "zero-tolerance" nature, such an event as that of the fall of Equitable Life, which could be considered as 'tolerable' from the perspective of a systemic financial risk, in fact, generated life changing catastrophic consequences for many.[100]

Other problems which relate to risk based regulation derive from the fact that "drivers of action" are short term random and irrational considerations, focus is not necessarily given to the most important risks, there is likelihood that risk based systems will tend to neglect lower levels of risk, which may aggregate to risks of immense and dangerous proportions.[101]

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92 M Power, The Risk Management of Everything: Rethinking the Politics of Uncertainty2004 Demos at page 21

93 ibid

94 See H Rothstein, M Huber and G Gaskell, 'A Theory of Risk Colonisation' (2006) 35 (1) Economy and Society at page 91

95 M Power, The Risk Management of Everything: Rethinking the Politics of Uncertainty2004 Demos at page 21

96 ibid

97 ibid

98 See R Baldwin and J Black, 'Really Responsive Regulation' LSE Law, Society and Economy Working Papers 15/2007 at page 12

99 M Power, The Risk Management of Everything: Rethinking the Politics of Uncertainty2004 Demos at page 22

100 ibid

101 R Baldwin and J Black, 'Really Responsive Regulation' LSE Law, Society and Economy Working Papers 15/2007 at pages 13 - 14

H. Meta Regulation
I. Why Meta Regulation Could Be the Most Responsive Form of Regulation

Regulation may be regarded as a response to risk[102] and the control of risks can be considered to be the main concern of regulation.[103] "The regulatory state is becoming a risk management state"[104]. Ulrich Beck argues that whilst the standard way of risk regulation in modern societies was well suited for such societies, it is not responsive enough to our "post modern" societies.[105] Risk is, as a result, inefficiently controlled at too high a cost.[106] Recent years have witnessed growing acceptance of the fact that the efficiency of regulation will be enhanced where a collaboration with private control systems exists.[107] By utilising activities which relate to private internal control systems for purposes which are of public regulatory nature, regulators are not only able to relieve themselves of the cumbersome work which derives from rule making, but are also able to concentrate on the oversight of the functioning and design of local systems.[108] 'Enforced self regulation', 'regulated self-regulation' and 'meta regulation' are various forms which a responsive model may assume and such a model assigns a central role to internal control systems.[109] Basel II bank regulation reforms constitute an example of meta regulation.

Meta regulation is referred to as the regulation of self regulation[110] whilst meta risk management implies the risk management of risk management. Traditionally risk management, to a large extent, has focused on complying with current rules.[111] It has great potential especially in situations where risks are volatile and where the regulator is not in a

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[102] U Beck, *Risk Society: Towards a New Modernity* (1992) London: Sage Publications ; also see C Hood, H Rothstein and R Baldwin *The Government of Risk: Understanding Risk* (2001) Oxford University Press

[103] R Baldwin and M Cave, *Understanding Regulation: Theory, Strategy and Practice* (1999) Oxford University Press at page 138

[104] M Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty*2004 Demos at page 23 and also see B Fischoff, SR Watson and C Hope ' Defining Risk' Policy Sciences 17 (1984)

[105] See U Beck, *Risk Society: Towards a New Modernity* (1992) London: Sage Publications and also M Lassagne and B Munier, 'The Move Towards Risk-Based Regulation and Its Impact on Operational and Strategic Management' see< http://www.cireq.umontreal.ca/activites/050930/papers/munier.pdf> (last visited 17th March 2009) According to Ulrich Beck and other sociologists' considerations of the "risk society", nature does not play a role in generating risks in the sense that risks are no longer the consequence of external or uncontrollable factors such as "force majeure" but are generated through man made decisions. Cultural theorists however, argue that attitudes to risk differ according to cultural preferences. See R Baldwin and M Cave, *Understanding Regulation: Theory, Strategy and Practice* (1999) Oxford University Press at page 141. Also see M Douglas *Risk and Blame* (1992) London

[106] It can be observed from daily occurrence that more attention should be devoted to recent evolution toward risk based regulation, examples of which can be found in recent European and partly Western-rule setting as illustrated by the Basel II agreement on the regulation of risks in banking and the European Commission White Paper on how to regulate risk in the chemical industry. For more information on this, see M Lassagne and B Munier, 'The Move Towards Risk-Based Regulation and Its Impact on Operational and Strategic Management' <http://www.cireq.umontreal.ca/activites/050930/papers/munier.pdf >(last visited 17th March 2009)

[107] M Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty*2004 Demos at page 21.

[108] ibid

[109] ibid; Also see E Rosa, 'Meta Theoretical Foundations For Post Normal Risk' Journal of Risk Research 1 (1998)

[110] See the penultimate chapter of Christine Parker's book, C Parker *The Open Corporation: Effective Self-Regulation and Democracy.* 2002 Cambridge: Cambridge University Press

[111] M Lassagne and B Munier, 'The Move Towards Risk-Based Regulation and Its Impact on Operational and Strategic Management' see http://www.cireq.umontreal.ca/activites/050930/papers/munier.pdf (last visited 17th March 2009)

position to comprehend such risks.[112] However maximum realisation of such potential can only occur only where such risks are within the control of an enterprise where the regulator holds an influential position.[113]

As was mentioned in the above paragraph, over the years, there has been a trend towards greater regulation of business management processes and strategies of regulated firms through regulatory tools which address the role of senior managements of firms and directly regulate individuals within firms.[114] According to Fiona Haynes[115], meta regulation "with its collaborative approach to rule generation", could controversially be considered to be the approach with greatest evolvement when considered in relation to other approaches such as co-regulation, enforced self regulation and process or management-based regulation. Meta regulation is a method which is capable of managing "self regulatory capacity" within those sites being regulated whilst exercising governmental discretion in stipulating the goals and levels of risk reduction to be achieved in regulation.[116] Processes and procedures for risk management are developed, not only by key stake holders, but also by personnel within these organisations.[117] This takes place whilst ensuring that "pro-compliance motivational postures" are generated within the site being regulated such that the goal of the regulator, that is, risk reduction, is achieved.[118] The success of the implementation of meta regulation is based on the regulator and regulated organisation's understanding of risk priorities in the same manner.[119] Meta regulation is advantageous particularly where there are complex causes of harm, which also require constant monitoring.[120] The disadvantages of meta regulation are not only attributed to its use of mathematical models, but also attempts to leverage off firms' own systems and expertise, as a means of limiting risks to the regulator's objectives – rather than directly imposing requirements on firms.[121]

The increasing popularity of internal control systems has been an express feature of risk management.[122] Primary or real risks[123] are translated by internal control systems into systems risks such as early warning mechanisms and compliance violation alerts.[124] As a result, many risks are capable of being and are being "operationalised" as organisational processes of control.[125] Such transformation is a pre requisite for the feasibility of risk based regulation.[126]

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112 J Braithwaite, Meta Risk Management and Responsive Governance Paper to Risk Regulation, Accountability and Development Conference, University of Manchester, 26-27 June 2003 at page 1

113 ibid

114 J Gray and J Hamilton, *Implementing Financial Regulation* (John Wiley and Sons Ltd 2006 at page 2

115 F Haines,'Regulatory Failures and Regulatory Solutions: A Characteristic Analysis of the Aftermath of Disaster', Law and Social Inquiry (2009) 39 (forthcoming) at page 3

116 ibid at page 1

117 ibid at page 3; Also see C Parker *The Open Corporation: Effective Self- Regulation and Democracy.* 2002 Cambridge: Cambridge University Press

118 ibid

119 F Haines,'Regulatory Failures and Regulatory Solutions: A Characteristic Analysis of the Aftermath of Disaster', Law and Social Inquiry (2009) 39 (forthcoming) at page 17

120 ibid at page 1

121 For further information on this, see J Gray and J Hamilton, *Implementing Financial Regulation* (John Wiley and Sons Ltd 2006 at pages 38 and 216

122 M Power, *The Risk Management of Everything: Rethinking the Politics of Uncertainty*2004 Demos at page 24

123 Primary risks, for example financial loss are distinguished from secondary risk (reputational risk) see ibid at page 32

124 ibid at page 24

125 ibid

126 ibid

I. The Centrality of Capital Adequacy to Risk Measurements and Persisting Problems of Basel II.

In response to the deficiency of Basel 1, and given the fact that the measurement of minimum capital requirements is based on a general assessment of risk dispersion in the banking sector which does not correspond in every case to the specific circumstances of individual institutions, credit institutions will be required to retain more capital than that stipulated for the minimum capital requirements if their individual risk situation so demands.[127]

A consequence of one of the primary objectives of the framework of Basel II, which was directed at making capital requirements more risk sensitive, is that the capital requirements became more cyclical periodically, than was the case under Basel I.[128] Such increased pro cyclicality had been anticipated and hence, the Capital Requirements Directive already provides for situations involving increased pro cyclicality through the inclusion of measures aimed at reducing such effects.[129]Such measures include the use of downturn Loss Given Default (LGD) estimates, adjustments which can be made technically to the risk weight function, stress testing requirements, and the Pillar Two – the supervisory review process.[130]

Pillar Two namely supervisory review consists of four principles.[131] Principle 1 states that banks should have a means of determining their overall capital adequacy in relation to their risk profile and also a plan for sustaining their capital levels and that these processes require board and senior management oversight, sound capital assessment, a comprehensive risk management system, monitoring and review, internal control review. Principle 2 states that supervisors should review and evaluate banks' internal capital adequacy determinants and plans and also their ability to monitor and ensure compliance with regulatory capital ratios. Supervisors should also take necessary supervisory action if they are not satisfied with the outcome of this process. Pillar Two could also include the combination of on-site examinations or inspections; off-site review; discussions with bank management and review of external auditors' work (as long as it sufficiently focuses on necessary capital matters) and periodic reporting.[132] Principle 3 states that supervisors should require banks to operate above the minimum regulatory capital ratio and also that banks hold capital in excess of the minimum. Principle 4 states that supervisors should act at an early stage to prevent capital from falling below stipulated minimum levels.

During periods when risks are considered to be lower, namely, during economic booms, the tendency of banks to indulge in greater levels of risk taking activities, tends to augment. Owing to tighter lending criteria during economic downswings, “feedback effects” may be

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127 ibid

128 See Annex on Procyclicality ,COMMISSION STAFF WORKING DOCUMENT accompanying document to the Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Capital Requirements Directive on trading book, securitization issues and remuneration policies IMPACT ASSESSMENT, July 2009, page 45 < http://ec.europa.eu/internal_market/bank/docs/regcapital/com2009/impact_assesment_en.pdf>

129 ibid

130 ibid

131 K Alexander, 'Corporate Governance and Basel II" (paper presented at the Institute of Advanced Legal Studies, Russell Square on the 7th October 2004)

132 ibid

generated for the real economy.[133] Pro cyclical problems were revealed following the collapse of Northern Rock where it was highlighted that it was complying with Basel capital requirements and had excess capital on the eve of its crash.[134] Another problem identified with Northern Rock was that it had high leverage – relying heavily on debt to finance its assets.[135]

Other criticisms directed towards Basel 2 include supervisory discretion – that this could result to regulatory capture, that it is excessively risk sensitive, that its capital formula is too prescriptive and complex and that it is not well-suited for 90% of the world's population.[136] Further, even though Basel 2, which is embodied in EU legislation[137], sets out what should be considered under Pillars 2 and 3, it does not provide directions to authorities of members states regarding what steps are to be taken in the cases involving non compliance.[138] Such matters are to be decided at national level.[139]

J. Conclusion

Some lessons from the Financial Crisis of 2007/08 indicated flaws in the following areas:[140] :

• Market discipline : This was ineffective in constraining risk taking outside the banking sector
• An underestimation of the systemic importance of some non banks institutions
• That regulators (and supervisors) failed to take adequate account of the systemic risks presented by the interaction between regulated and unregulated institutions activities (such as hedge funds), and markets.

According to Brunnermeier et al[141] failures such as Northern Rock, Lehman Brothers and Bear Stearns were triggered not only by their inability to transfer their liabilities (funding illiquidity), but also their inability to sell mortgage products at “non-fire sale-prices” (market illiquidity). The extent to which the maturity of funding determines the risk of an asset is an

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133 See Annex on Procyclicality ,COMMISSION STAFF WORKING DOCUMENT accompanying document to the Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Capital Requirements Directive on trading book, securitization issues and remuneration policies IMPACT ASSESSMENT, July 2009 at page 44 < http://ec.europa.eu/internal_market/bank/docs/regcapital/com2009/impact_assesment_en.pdf>

134 see S Cociuba, ‘Seeking Stability: What’s Next for Banking Regulation?’ Northern Rock had obtained approval from the Financial Services Authority to switch to Basel II advanced approach in order to calculate risk weights for its assets using the bank’s internal models. In December 2006, its capital ration was 11.6 under Basel I calculations but this jumped to 17.5 under Basel II. In June 2007, this had risen to 18.2%; for further information on this see S Cociuba, ‘Seeking Stability: What’s Next for Banking Regulation?

135 Ibid; Leverage is pro cyclical – being high during booms and low during downturns. Whilst some other institutions adjusted their balance sheets by raising new equity or selling assets to repay some debt, Northern rock did not reduce its debt; ibid.

136 K Alexander, 'Corporate Governance and Basel II' (paper presented at the Institute of Advanced Legal Studies, Russell Square on the 7th October 2004)

137 Through the Capital Requirements’ Directive

138 See D Mayes and G Wood, ‘Lessons From the Northern Rock Episode’ at page 17

139 ibid

140 See A Carvajal and others ‘The Perimenter of Financial Regulation’ (2009) SPN/09/07 at page 4 of 17 <http://www.imf.org/external/pubs/ft/spn/2009/spn0907.pdf >(last visited 18 May 2009)

141 See ‘The Fundamental Principles of Financial Regulation: Geneva Reports on the World Economy 11’, Preliminary Draft 2009 at page 36

important lesson from the Crash of 2007/2008.[142] A reason attributed to Northern Rock's vulnerability was its excessive reliance on wholesale funds.[143] "Wholesale funds are obtained from non financial corporations, money market mutual funds, foreign entities and other financial institutions. Typically, the funds are raised on a short-term basis through instruments such as certificates of deposit, commercial paper, repurchase agreements and federal funds."[144]

I. What Proportion of Risks are Actually Provided for by Basel II?

1. Hedge Funds

The main purpose of Basel I and Basel II focuses round the incorporation of risks. As a starting point, it needs to be stated that risks cannot be eliminated – they can only be minimised. If risks were eliminated, then regulation would serve no purpose. Concerns remain over hedge funds as this is an area where regulators have limited jurisdiction. Many regulators do not authorise such funds and most of the administrators of these hedge funds are located offshore.[145] In March 2008, the Financial Stability Forum (FSF) during its 19th meeting, considered efforts by the hedge fund industry to review and improve sound practices – particularly those of the UK-based Hedge Fund Working Group and the US-based Asset Managers' Committee and Investors' Committee with the aim of increasing transparency and providing better risk management practices.[146]

Up till now, regulatory focus has been directed towards ensuring that bankruptcy relating to hedge funds, does not trigger further systemic crisis in other parts of the financial sector.[147] From the responses obtained from the European Commission's Consultation Document on Hedge Funds, a significant percentage of these were of the opinion that adequate bank capitalization structures were in place to contain consequences of a hedge fund crisis.[148] Furthermore, the results not only revealed that prime brokers were equipped with risk management tools which would shield them from counter party risks, but that respondents also considered the prudential requirements to which prime brokers were subject, to be

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142 see ibid at viii

143 S Cociuba, 'Seeking Stability: What's Next for Banking Regulation?' Chart 3 http://www.ideas.repec.org/a/fip/feddel/y2009iaprnv.4no.3.html (last visited 25 May 2009)

144 ibid

145 *FSA Annual Report* (2004/05) 22
The risks identified by the Financial Services Authority (FSA) in relation to hedge funds can be summarised as follows: Serious market disruption and erosion of confidence as a result of the failure or significant distress of a large and highly exposed hedge fund or, with greater probability, a cluster of medium sized hedge funds with significant and concentrated exposures; Liquidity disruption leading to disorderly markets as hedge funds make increasingly illiquid investments in particular markets and instruments whilst offering their investors the ability to withdraw their money more quickly.
This could result in a significant liquidity mismatch and require hedge fund managers to dispose of assets very quickly, causing volatile and potentially disorderly markets; insufficient reliable and comparable data is available to regulators which limits their ability to make informed decisions about risk and take proportionate regulatory action to mitigate such risk; Control issues arise as the trading (rather than management) background of many hedge fund managers, and their typical ownership structures, means that some managers do not have the right skills or incentives to create an effective control infrastructure. See <http://www.fsa.gov.uk/pages/about/media/notes/bn008.shtml >

146 B Gadanecz 'Recent Initiatives by the Basel-based Committees and Groups' pg 87

147 See http://ec.europa.eu/internal_market/consultations/docs/hedgefunds/feedback_statement_en.pdf

148 ibid

stringent.[149] The European Commission's Consultation Document on Hedge Funds[150] should contribute to a consideration of the appropriateness of existing approaches to regulation and supervision of the hedge funds sector.[151]

2. Non Bank Financial Institutions

Even though banks are unique in the sense of the extent of systemic risk they generate, such risks could also be triggered by a non bank financial institution. This could be illustrated by the effects of Enron's collapse on the financial markets. It could then be argued that the disclosure of risk to market participants under Pillar 3 is not on its own sufficient, and that there is need for greater efforts to incorporate those risks attributed to non-bank institutions.
According to Baldwin and Cave, the first regulatory challenge faced by regulators consists in the identification of risks that need to be reduced – not only on the basis of priority, but also in a way which would be approved by the public.[152] Secondly, regulators are confronted with the challenge of managing and regulating risks in a way which is both effective and acceptable.[153] Furthermore, the design of institutions and techniques for managing risk, the choice of the appropriate regulatory technique, issues relating to whether risk management or regulation should be "blame oriented" and the contentious topic of reliance by risk managers on qualitative risk evaluations in contrast to more quantitative methods of assessments constitutes additional challenges.[154]

II. Procyclical Nature of Risk

Proposals which have been put forward by the Financial Stability Forum in a bid to address pro cyclicality and alleviate factors which exacerbate it, extend to three areas[155] are as follows: [156]

i) A consolidation of the regulatory capital framework : Aimed at improving the quality and levels of capital in the banking system during periods of economic boom, such that when the economy experiences a period of downturn and financial pressure, stored up capital could be utilised.

ii) A revision of the Basel II framework for market risk: Aimed at reducing a dependency on "cyclical VAR based capital estimates"[157]

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[149] ibid; Many respondents also thought that banks' risk assessment systems were robust enough to address counter party risks – even though such responses were based on preliminary assessments. Due to the fact that credit, counter party and market risks could speedily materialize, some respondents considered further consolidation of prime broker management of hedge fund related risk as essential in limiting the possibilities of a systemic impact being triggered.

[150] Whose period of consultation was between 18.12.2008 and 31.01.2009

[151] See http://ec.europa.eu/internal_market/investment/alternative_investments_en.htm

[152] R Baldwin and M Cave, *Understanding Regulation: Theory, Strategy and Practice* (1999) Oxford University Press at pages 142 and 143

[153] ibid at 143

[154] ibid at 144

[155] These are "bank capital framework", " bank loan loss provisions" and "leverage and valuation issues". See Annex on Procyclicality ,COMMISSION STAFF WORKING DOCUMENT accompanying document to the Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Capital Requirements Directive on trading book, securitization issues and remuneration policies IMPACT ASSESSMENT, July 2009 < http://ec.europa.eu/internal_market/bank/docs/regcapital/com2009/impact_assesment_en.pdf> pages 45 and 46

[156] ibid

[157] ibid at page 46

iii) Bolstering risk based capital requirements with a measurement base which is neither risk based nor complex. This is aimed at facilitating the management of leverage in the banking system

iv) The imposition of a requirement that supervisors adopt the Basel Committee's stress testing practices

v) Monitoring the effect of Basel II and implementing relevant adjustments to ease "excessive cyclicality of minimum capital requirements"[158] which relate to the "risk coverage f the capital framework"[159].

In response to Basel II's shortcoming and since capital regulation contributes to the degree of economic downturns[160], a complement of the rules on bank capital with rules on liquidity and leverage is proposed by Cociuba as a means of addressing the inadequacy of risk based capital measures in promoting the stability of the financial system.[161]

Furthermore, counter cyclical regulatory mechanisms have been proposed to address pro cyclical problems which have not been addressed by Basel II.[162] Recent amendments to the Basel II framework and Pillar 2 (supervisory review process) in particular, are aimed at addressing weaknesses that have been highlighted in bank risk management processes during the recent crises.[163] Areas which have been addressed include "firm- wide governance and risk management", the capture of risks emanating from off-balance sheet exposures and securitisation activities, the management of risk concentrations, the provision of incentives to banks in order to facilitate better management of risks and returns on a long term basis , and "sound management practices".[164]

III. Risk Management at EU Level

In view of all that has been considered in this paper, namely, increased globalisation, conglomeration and the impact of systemic risks across national boundaries, the need for risk management at European would appear almost inevitable. Basel II has come a long way since its inception and although it has encountered its fair share of regulatory challenges, it is constantly evolving and adapting to the changes resulting from a dynamic and more complex financial environment. The adoption of the Capital Requirements Directive has resulted in more comprehensive capital requirements that are particularly geared towards accounting for "operational risk."[165] Furthermore, the rules have become more risk sensitive – hence providing for institutions to implement approaches designed to select regulatory capital which corresponds with their situation.[166]

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158 ibid

159 ibid

160 Since banks choose to reduce lending when capital is scarce

161 ibid; also see The Run on the Rock," House of Commons Treasury Committee, Fifth Report of Session 2007–08, vol. 1, January 2008, pp. 14–15.

162 See M Brunnermeier and others,'The Fundamental Principles of Financial Regulation: Geneva Reports on the World Economy 11', Preliminary Draft 2009 at pages 29-35

163 See ' Enhancements to the Basel II Framework' Bank For International Settlements, July 2009 < http://www.bis.org/publ/bcbs157.htm> (last visited 27 July 2009)

164 ibid

165 The risk of systems breaking down; see COMMISSION STAFF WORKING DOCUMENT accompanying document to the Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Capital Requirements Directive on trading book, securitization issues and remuneration policies IMPACT ASSESSMENT, July 2009 at page 7

Further work is required in adopting measures aimed at improving bad incentive structures - which contribute not only to high levels of risk taking, but also to increased pro cyclicality. This is complicated due to the fact there is need for clear legal rules at EU level, which are aimed at providing clear explicit requirements which stipulate that "remuneration policies of financial institutions be subject to supervisory oversight".[167]

IV. The Potential of Meta Risk Regulation

Meta risk regulation is proposed as a means of quantifying and managing risks under the risk society theory – risks which I would like to refer to as institutional risks. Such a proposal would not only address, to an extent, the concerns of Beck (in relation to matters of accountability), but would also be a more appropriate means of controlling more complex risks which have resulted from developments of science and technology. Such risks can be contrasted with the more "traditional and novel societal risks". Enforced Self Regulation is proposed as a means of addressing such less complex and more traditional forms of risk – whilst providing some scope for the role of judicial governance and the involvement of courts. Courts are simply not adequately equipped to deal with the pace with which some financial instruments, such as derivatives, operate. Even though the Capital Requirements Directive had provided for increased pro cyclicality, it came into force after the 2007/08 Financial Crises had practically ended – thus making it impossible for it to have any impact on the Crisis. As a result, the role of courts and judicial governance in risk regulation should constitute a topic for purposes of future research. Furthermore, the theory of risk colonisation which involves the dynamic linkage between societal and institutional risks, as propounded by Rothstein et al, and within this context,[168] would constitute a fertile ground for research.

The ability of responsive regulation to address such a complex[169] factor as risk, its flexibility and responsiveness to regulatees and its environment, among other advantages, make it a more desirable regulatory tool than traditional regulation or risk based regulation. Whilst direct monitoring by the State would be required, the involvement of third parties such as non government organisations would also be crucial to ensuring that a situation, whereby the State could be captured, is avoided. Furthermore the possibilities available in achieving the right "regulatory mix" make it a promising regulatory tool. Even though the contested nature of risk contributes to the difficulty of relying on risk as a regulatory tool, its presence and ever growing significance cannot be ignored – hence the need for a form of regulation which is able to manage risk more effectively and which would best suit an evolving regulatory environment.

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166 The Internal Rating Based Approach for example, enables institutions to decide on capital requirements for credit risk through an incorporation of their own "risk inputs". See ibid

167 ibid at page 18

168 See H Rothstein, M Huber and G Gaskell 'A Theory of Risk Colonization: The Spiralling Regulatory Logics of Societal and Institutional Risk at page 107

169 According to Baldwin and Cave, risk regulators encounter problems with the search for legitimation as a result of differences between the lay and experts' perceptions of risk. For additional information on what could be done to improve the effect of legitimating arguments and solutions advanced to counter problems of risk regulation, see R Baldwin and M Cave, *Understanding Regulation: Theory, Strategy and Practice* (1999) Oxford University Press at pages 145 –149. For problems with defining and assessing risk, see page 138 ibid