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.

Ojo, Marianne

Center for European Law and Politics, University of Bremen

August 2009

ABSTRACT

The use of complex and sophisticated financial instruments, such as derivatives, in the modern financial environment, has triggered the emergence of new forms of risks. As well as the need to manage such types of risks, this paper investigates developments which have instigated the Basel Committee in developing advanced risk management techniques such as the Internal Ratings Based (IRB) approaches and the Advanced Measurement Approaches (AMA). Developments since the inception of the 1988 Basel Capital Accord have not only led to growing realisation that new forms of risks have emerged, but that previously existing and managed forms require further redress. Basel II has evolved to a form of meta regulation – a type of regulation which involves the risk management of internal risk within firms. This paper attempts to illustrate the extent to which the Basel II Capital Accord has responded to global and financial developments and concludes on the basis of available research evidence, that given the difficulties attributed to the constantly evolving nature of risk and the need for regulators to remain one step ahead, that Basel II, to an extent, has been responsive in meeting with regulatory demands. However, the existence of unregulated instruments such as hedge funds still implies that, despite its advancements and achievements, the Basel Committee still faces uphill challenges in its efforts to address and regulate risks.

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.

Marianne Ojo[1]

Introduction

Meta regulation "with its collaborative approach to rule generation", it has been argued[2], could controversially be considered as the approach with greatest evolvement when compared with other regulatory approaches. Meta risk regulation involves the risk management of internal risk and the ability to implement firms' own internal risk management systems in achieving regulatory objectives.[3] The Basel II Capital Accord is an illustration of the operation of meta regulation owing to the fact that bank capitalisation is not to be imposed externally by regulators but to be determined by a bank in accordance with its own internal risk management models and this is subject to the fact that such models are regarded by the regulators as being adequate.[4] Since the inception of the 1988 Basel Accord, advanced internal based regulatory models have been introduced by the Basel Committee in response to the flaws which were revealed following the introduction of the 1988 Accord. This paper commences with a discussion revolving round the primary objectives of the 1988 Accord and provides an insight into developments which triggered a need for the revision of the 1988 Accord in June 1999 – as demonstrated by the Basel Committee's issue of its First Consultative Paper. As well as facilitating a discussion of the criticisms of the 1988 Accord, the section also highlights other factors which instigated the introduction of Basel 2. The section which then follows is dedicated to a consideration of reasons for the introduction of the Internal Ratings Based Approaches – a consequence of the Second Consultative Paper. The remaining sections of the paper will then focus on the Internal Ratings Based approaches and the Advanced Measurement Approaches – with particular focus on the various types of risks which these approaches have been designed to manage and the reasons attributed to the importance of such risks. In arriving at a conclusion, the concluding section of this paper will consider the benefits of the advanced measurement approaches, the flaws which appear to exist in implementing such approaches, and also other efforts undertaken by the Basel Committee to address the inadequacies of the 1988 Accord, as well as its response to a changing global financial environment.

---

[1] Research Fellow, Center For European Law and Politics, University of Bremen.

[2] See F Haines, 'Regulatory Failures and Regulatory Solutions: A Characteristic Analysis of the Aftermath of Disaster', Law and Social Inquiry (2009) 30 at page 3; also see C Parker *The Open Corporation: Effective Self-Regulation and Democracy* 2002 Cambridge: Cambridge University Press

[3] J Gray and J Hamilton, *Implementing Financial Regulation: Theory and Practice* (2006) at page 37

[4] ibid

The 1988 Basel Accord was adopted as a means of achieving two primary objectives namely:[5]

- "…..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.[6] Furthermore, it was designed to take into express consideration off balance sheet exposures when assessments of capital adequacy are undertaken.[7]

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:[8] 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.[9] 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.[10] Results obtained in response to an evaluation of the impact of capital requirements on risk taking were inconclusive.[11]The data available for purposes of measuring bank risk taking were not only limited, but also complicated the task of making an evaluation thereof.[12]

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.[13] These evaluative difficulties, respectively, were attributed firstly, to the fact that "long term competitiveness of

---

[5] „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> (last visited 31 July 2009)
[6] ibid
[7] ibid
[8] ibid
[9] ibid at page 2
[10] ibid at page 3
[11] ibid
[12] ibid
[13] See ibid at page 4

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.[14]

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".[15] 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 in risk measurement[16] 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.[17] 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.[18] 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.[19] In addition to such insensitivity to risk, another problem which resulted from Basel I was the unwillingness of banks to invest in better risk management systems.

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."[20] "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.[21] Four dominant types of capital arbitrage which have been identified are

---

[14] ibid at pages 4 and 5
[15] See ‚Consultative Paper on a New Capital Adequacy Framework" June 1999 < http://www.bis.org/press/p990603.htm> (last visited 31 July 2009)
[16] See remarks of the chairman of the Task Force on the Future of Capital regulation; ibid
[17] „Basle bust" *The Economist* April 13th 2000
[18] 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
[19] ibid
[20] 'Capital Requirements and Bank Behaviour: The Impact of the Basel Accord' Basel Committee on Banking Supervision Working Papers April 1999 at page 21
[21] ibid; Bank's capital ratio may appear inflated "relative to the riskiness of the remaining exposure", see ibid

namely:[22] cherry picking, securitisation with partial recourse, remote origination and indirect credit.

Basel II

Some of the key factors which instigated the introduction of Basel 2 include:[23]

- 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.[24] 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.[25] Under Pillar One, credit and market risk are supplemented by operational risk – which is to be corroborated by capital.[26]

Reasons attributed to the focus on credit risk

In several countries, differences which exist between sectors of principal business activities, along with risk exposures of such businesses, reflect variations which persist in the rules that are applied to various types of businesses.[27] To illustrate, whilst balance sheets of individual banking institutions vary, generally, lending activities constitute the core of commercial banking business, and since loans typically constitute the major part of banks' assets, the dominant risk for banking institutions, is consequently credit risk.[28] Liquidity risk and other market risks are also connected with day to day activities in commercial banking. Furthermore, as illustrated by the recent financial crisis, liquidity risk is also assuming a role which is of greater importance than was previously the case. According to Brunnermeier et al[29] 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

[22] See ibid at pages 22-24
[23] See A Saunders and L Allen, 'Credit Risk Measurement: New Approaches to Value at Risk and Other Paradigms' Second Edition Wiley Publishers at page 24
[24] See 'Basel II: Minimum Capital Requirements' http://www.bundesbank.de/bankenaufsicht/bankenaufsicht_basel_saeule1.en.php (last visited 10 August 2009)
[25] See ibid
[26] ibid
[27] 'Supervision of Financial Services in the OECD Area: Financial groups, financial convergence and prudential supervision' page 4 < http://www.oecd.org/dataoecd/29/27/1939320.pdf> (last visited 3 August 2009)
[28] ibid
[29] See 'The Fundamental Principles of Financial Regulation: Geneva Reports on the World Economy 11', Preliminary Draft 2009 at page 36

maturity of funding determines the risk of an asset is an important lesson from the Crash of 2007/2008.[30] Under Basel 2 proposals, the aggregate capital adequacy measurements after 2005 are to be calculated as a sum of the credit, market and operational risk capital requirements.[31]

The Transition to Internal Rate Based Methodologies - The Second Consultative Paper

In January 2001, the Basel Committee issued the Second Consultative Paper which introduced the two Internal Ratings Based (IRB)methodologies, the Foundational IRB and the Advanced IRB methodologies. With the internal ratings based approaches introduced under Basel II, large banks, through an implementation of their individual credit risk models, will be able to derive fundamental inputs for the formulas that will decide the level of capital they must retain.[32] In facilitating and enabling the implementation of such advanced developed techniques for the purposes of carrying out self assessments of risk, Basel II gives greater prominence to capital regulation.[33] However, the prominence of the Advanced IRB approach in the future, will bring about serious consequences where there are limitations in the approach.[34] Basel 2 accounts for unexpected losses in capital requirements – unlike the situation which existed under Basel 1 whereby the market risk amendment only incorporated unexpected losses.[35]

Reasons for introducing the IRB approaches

The benefit which an Internal Ratings Based approach was to offer was attributed to the increased risk sensitivity generated from its regulatory capital requirements. The IRB approaches are consequential of Basel negotiations - unlike regulatory methods and rules which are products of international harmonisation and which were adopted from already existing systems.[36]

The Internal Ratings Based approach to capital requirements for credit risk, not only relies significantly on the internal assessment carried out by a bank, in relation to counter parties and exposures, but is geared towards the achievement of two primary goals.[37] These are namely, "additional risk sensitivity" and "incentive compatibility."[38]

---

[30] see ibid at viii

[31] See A Saunders and L Allen, 'Credit Risk Measurement: New Approaches to Value at Risk and Other Paradigms' Second Edition Wiley Publishers at page 24

[32] See D Tarullo,*Banking on Basel: The Future of International Financial Regulation* Peterson Institute for International Economics at page 6

[33] ibid at page 16

[34] ibid

[35] A Saunders and L Allen, 'Credit Risk Measurement: New Approaches to Value at Risk and Other Paradigms' Second Edition Wiley Publishers at page 25

[36] D Tarullo,*Banking on Basel: The Future of International Financial Regulation* Peterson Institute for International Economics at page 6

[37] 'The Internal Ratings Based Approach', Supporting Document to the New Basel Capital Accord 2001 http://www.bis.org/publ/bcbsca05.pdf (last visited 3 August 2009) at page 1

[38] With respect to „incentive compatibility", a well- structured IRB approach could stimulate banks to improve their internal management practices on a continual basis. ibid

Under the original Accord, the first pillar was geared towards the aim of attaining a detailed and "risk sensitive treatment" of credit risk.[39] In order to improve the alignment of capital charges to underlying risk in matters relating to sovereign risks, a proposal was made to replace the approach which prevailed at the time with a system which would employ the use of external credit assessment in determining risk weightings.[40] An amended version of the prevailing approach under the 1988 Accord, the implementation of banks' internal ratings, along with portfolio credit risk models were to be used in establishing minimum capital requirements.[41] Furthermore, the Basel Committee not only acknowledged transactions where the 1988 Accord did not promote the implementation of "credit risk mitigation techniques", but also put forward proposals aimed at widening the scope of the Accord to embrace other major classes of risks, namely market risk.[42]

Market Risks

The foundational approach for the capital framework for market risk segregates "general market risk" from "specific risks" attributed to individual securities.[43] An alternative to that part of the standardised approach which constitutes general market risk was to be found through the establishment of the internal models approach.[44] Some scope, however, was permitted by the April 1995 Committee Document as a means of designing the components of specific risk.[45] Furthermore, comments were invited in order to facilitate proposals on how specific risk was measured at the time, and how it could be measured for capital purposes.[46] The inherent flaws in banks' internal models were highlighted in the responses from industry participants and such responses revealed that whilst bank's internal models may account for particular components of specific risk, evidence appeared to corroborate the fact that vital components of specific risk (such as event or default risk), were not generally "captured" by banks' internal models.[47] Furthermore, the probability of default (PD) of a borrower or class of borrowers, the core quantifiable concept which the IRB is founded on, does not present an accurate account of potential credit loss.[48] The entire specific risk charges of the standardised approach are to be imposed on bank models which do not incorporate (partially or wholly) specific risks.[49]

---

[39] See D Tarullo,*Banking on Basel: The Future of International Financial Regulation* Peterson Institute for International Economics at page 6

[40] ibid

[41] ibid

[42] Interest rate risk in the banking book and other risks such as operational risks, were not expressly addressed at the time. See ibid

[43] See 'Overview of the Amendment to the Capital Accord to Incorporate Market Risks: The Use of Internal Models for Supervisory Purposes/ Treatment of Specific Risks' Basel Committee on Banking Supervision, Committees at the Bank for International Settlement Jan 1996, paragraph 17 http://riskinstitute.ch/BIS.htm (last visited 11 August 2009)

[44] ibid

[45] ibid

[46] ibid

[47] See ibid at para 18

[48] The fundamental inputs to the IRB approach comprise of the probability of default (PD), the Loss Given Default (LGD) the Exposure at Default (EAD) and the maturity of exposures (M). See Basel Committee on Banking Supervision, Consultative Document, Standard Approach to Credit Risk, Supporting Document to the New Basel Accord at page 3 January 2001
<http://www.bis.org/publ/bcbsca04.pdf> (last visited 3 August 2009)

[49] ibid at para 19

Basel 2 operates according to a three level approach whereby banks are permitted to select from three models, namely, the basic standardized model, the IRB foundation approach and the advanced ratings approach.[50] Whilst the foundational and advanced Internal Ratings Based approaches are determined in accordance with banks' internal ratings, the standardised approach is the most simplified of the three approaches.[51] Under the standardised approach, regulatory capital requirements are more syncronised and in harmony with the principal elements of banking risk – owing to the introduction of more differentiated risk weights and a broader recognition of techniques which are applied in mitigating risk whilst such techniques attempt to avoid undue complexity.[52] As a result, capital ratios generated through the standardised approach, should adapt more to present and actual risks encountered by banks, than was previously the case.[53]

Eligibility requirements for the Internal Ratings Based models

Certain minimum requirements which relate to internal ratings, credit assessments and disclosure need to be fulfilled in order for a bank to qualify for an application of the IRB approach.[54] Furthermore, the eligibility requirements for an internal ratings based model imposes obligations on the bank to set up an internal ratings model for purposes of compartmentalising the exposure of various lending activities, be they commercial or consumer lending, and depending on whether such are on or off balance sheet activities.[55]

Qualifications aimed at satisfying the demands of the Advanced IRB approach would require the fulfilment of supplementary conditions which would apply in exposure calculations where the following events occur, namely: default, loss in the event of default and maturity of the exposure.[56]

Criticisms of the IRB approaches

Various responses which were received in relation to the Second Consultation Paper highlighted the following recurring themes: [57]

- Doubts were expressed over the potential of the IRB approach to address capital regulation
- The Committee was criticised over its application of a "scaling factor" which multiplied the probability of default value (generated by the bank's internal system) by a factor of around 1.5

---

[50] ibid at page 24

[51] Basel Committee on Banking Supervision, Consultative Document, Standard Approach to Credit Risk, Supporting Document to the New Basel Accord at page 1 January 2001 <http://www.bis.org/publ/bcbsca04.pdf> (last visited 3 August 2009)

[52] ibid

[53] ibid

[54] D Tarullo, *Banking on Basel: The Future of International Financial Regulation* Peterson Institute for International Economics at page 108

[55] A Saunders and L Allen, 'Credit Risk Measurement: New Approaches to Value at Risk and Other Paradigms' Second Edition Wiley Publishers at page 31

[56] D Tarullo, *Banking on Basel: The Future of International Financial Regulation* Peterson Institute for International Economics at page 108

[57] See ibid at pages 111 and 112

- The proposals under the Second Consultation were considered by several commentators as "incomplete" in areas which were of significant importance – hence, they were incapable of assessing the effects of the Committee's proposals
- The most important of these responses focussed on complaints which had been made by several banks in relation to increased regulatory capitals under the Second Consultative Paper. Reports from November 2001 indicated that levels of regulatory capital would rise under the three approaches. The Basel Committee was confronted with an embarrassing situation where the aggregate percentage rise for the foundational IRB approach was higher in comparison to the moderate drop witnessed under the Advanced IRB approach.[58] This implied that banks would have little (if any) incentive to change from a standardized approach to the foundational approach.[59] Such conflicting results inflicted damage to the Basel Committee's credibility as the results appeared to corroborate the fact that "it did not seem to understand the effects of its own proposals".

In establishing an Internal Ratings Based approach, the Committee's intention was directed at fine tuning capital requirements with a greater degree of accuracy to the level of a bank's exposure to credit risk.[60] The IRB approach operates consistently with the system adopted by several banks whose risk management systems are capable of making internal assessments in matters related to their capital adequacy and risk profiles.[61]

Internal measurements of banks' credit risk levels are dependent on evaluations of the "risk characteristics" which are attributed to the borrower and the particular type of transaction.[62] Many banks align the methodologies of their borrower ratings and risk management practices to the risk of borrower default.[63]

Operational Risk

Operation is regarded as "the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events"[64] It is also considered " the danger of a bank sustaining losses resulting from failed internal processes and systems, human error or through the impact of external events on banking operations."[65] Focus is

[58] Even though the requirement which was proposed for operational risk was to generate an aggregate rise in regulatory capital; see ibid
[59] ibid
[60] Basel Committee on Banking Supervision, Consultative Document, Standard Approach to Credit Risk, Supporting Document to the New Basel Accord at page 3 January 2001 <http://www.bis.org/publ/bcbsca04.pdf> (last visited 3 August 2009)
[61] ibid
[62] ibid
[63] ibid
[64] Basel Committee's definition. Whilst strategic and reputational risks are not included as part of this definition, the definition includes legal risk. See Consultative Document on "Operational Risk" January 2001 Bank For International Settlements < http://www.bis.org/publ/bcbsca07.pdf> (last visited 6 August 2009) at page 2
[65] See 'Basel II: AMA Approval procedure' http://www.bundesbank.de/bankenaufsicht/bankenaufsicht_basel_zulassungama.en.php

placed by the Basel Committee on the causes of operational risk and this is attributed to the needs and demands of risk management and measurement.[66]

Relevance of the three pillars of Basel II to the operational risk capital framework

The three pillars of the New Basel Capital Accord contribute immensely to the operational risk framework.[67] The Basel Committee's implementation of rigorous quantitative and qualitative standards for measuring and managing risk, which will aid the determination of certain capital assessment techniques' applicability and suitability, in the Committee's opinion, should serve in facilitating the management of operational risk.[68] This is illustrated under Pillar One where operational risk is to be corroborated by capital. Pillar One minimum capital requirements are not only intended by the Committee to be used in the determination of the eligibility to apply certain capital assessment techniques, but also considered to be vital in the management of operational risk.[69] Whilst Pillar Two establishes a framework whereby banks are obliged to assess the level of capital required in order to corroborate any risks borne by these institutions, which will be reviewed by supervisors, Pillar Three facilitates a process whereby banks are subjected to stringent requirements aimed at compelling them to execute their business activities efficiently and securely.[70]

Measurement approaches for operational risk can be found in the Capital Requirement Directive (CRD). There are three wide approaches to capital assessment of operational risk as provided by the Basel Committee:[71]

- Basic Indicator Approach
- Standardised Approach
- Internal Measurement Approach

As from 2007, institutions were allowed to select between the Basic Indicator Approach and the Standardised Approach, whilst the application of the more sophisticated AMA approach was permitted from 2008.[72] Implementation of such approaches is subject to approval from national supervisors.[73] Credit institutions which have not been authorised to implement the AMA or which have not filed for an application of the use of the Standardised Approach, will be consigned to the use of the Basic Approach.[74]

---

66 . See Consultative Document on "Operational Risk" January 2001 Bank For International Settlements < http://www.bis.org/publ/bcbsca07.pdf> (last visited 6 August 2009) at page 2; Based on the Committee's review of the industry's progress in measuring operational risk, it acknowledges the need to measure and design operational risk at the earliest stages; ibid.

67 See Consultative Document on "Operational Risk" January 2001 Bank For International Settlements < http://www.bis.org/publ/bcbsca07.pdf> (last visited 6 August 2009) at page 4

68 ibid

69 ibid

70 ibid

71 See Consultative Document "Operational Risk" Basel Committee on Banking Supervision, Supporting Document to the New Basel Capital Accord, January 2001 page 5 http://www.bis.org/publ/bcbsca07.pdf (last visited 1st August 2009)

72 See 'Basel II: AMA Approval procedure' http://www.bundesbank.de/bankenaufsicht/bankenaufsicht_basel_zulassungama.en.php

73 See for example, the case with the German Bank Supervisor, BaFin; ibid

74 ibid

Advanced Measurement Approaches (AMA)

Advanced Measurement Approaches serve as means whereby Basel 2 not only offers a wide scope of flexibility to banks in their development of an operational risk management framework, but by so doing, recognises the "evolutionary nature" inherent in managing operational risk.[75]

For purposes of applying the Advanced Measurement Approach (AMA) for operational risk, credit institutions are encouraged to submit applications for approval.[76]

Eligibility Requirements for Advanced Measurement Approaches

The bank is required to satisfy general standards,[77] qualitative[78] and quantitative[79] standards.

General Standards
Minimum requirements to be fulfilled by a bank include: The active involvement by the board of directors and senior management, in supervising the framework for operational risk management, sound and a credible operational risk management system, and adequate resources in operating core business activities and departments relating to control and audit functions.[80]

Furthermore, an initial monitoring period is imposed on a bank, by its supervisor, before it can carry out any regulatory activities.[81]

Qualitative Standards

In relation to qualitative standards, a bank must possess an independent management function which is not only capable of designing and implementing the management framework of the bank's operational risk, but also codifying procedures involving operational risk management and controls.[82] Furthermore, the bank must not only ensure that necessary procedures exist as a means of responding to information contained within management reports, but that its "operational risk management systems" are "closely integrated into the day-to-day risk management processes of the bank", satisfy the requirements of reporting on a regular basis in matters relating to operational risk exposures and "loss experience" and that such risk management systems are sufficiently documented .[83]

---

[75] See ' Observed Range of Practice in Key Elements of Advanced Measurement Approaches (AMA)" October 2006 Bank for International Settlements http://www.bis.org/publ/bcbs131.pdf?noframes=1 (last visited 6 August 2009)
[76] See 'Basel II: AMA Approval procedure'
http://www.bundesbank.de/bankenaufsicht/bankenaufsicht_basel_zulassungama.en.php
[77] See paragraph 664 of the Basel II Accord < http://www.basel-ii-accord.com/BaselText/Basel664to683.htm> (last visited 6 August 2009)
[78] see ibid, paragraph 666
[79] See ibid para 667 – with particular reference to the AMA soundness standard
[80] See para 664
[81] ibid para 665
[82] ibid para 666(a)
[83] see ibid at para 666(b) (c) and (d)

Conclusion

Basel Committee's Efforts in Responding to New Forms of Risk and its Evolutionary Nature.

Having considered the progress made by the Basel Committee: In addressing the deficiencies of the 1988 Basel Accord, in supplementing credit and market risk with operational risk under Pillar One of Basel 2, in imposing stringent requirements on banking and credit institutions before the adoption of Internal Ratings Based and Advanced Measurement approaches can occur, *interalia*, criticisms of these sophisticated techniques must also be acknowledged. Apart from the fact that such approaches are not well tested, the inability of banks' internal models to effectively incorporate particular elements of specific risks is an issue which the Committee acknowledges to be of vital importance.[84] Whilst Basel 2 does not cannot account for all prevailing financial risks, the regulation of instruments such as hedge funds, which are of systemic importance to the financial industry, and the pro cyclical nature of risks, as revealed in the recent financial crisis, are areas where work is currently being undertaken. This is reflected in proposals which have been put forward by the Financial Stability Forum and which include a consolidation of the regulatory capital framework, a revision of Basel II framework for market risk and bolstering risk based capital requirements with a measurement based which is neither risk based nor complex.[85]

However, greater focus appears to be required in matters related to the incorporation of risks attributed to non bank institutions. As well as highlighting the ineffectiveness of market discipline in constraining risk taking outside the banking sector, the recent financial crisis also highlighted an underestimation of the systemic importance of some non bank institutions.[86]

[84] The Committee acknowledges that whilst it is willing to accord credit to bank models which are capable of incorporating specific risks and also introduce measures aimed at encouraging such methodologies, it is of vital importance to have a "prudential cushion" which would deal with how certain components of specific risk could be designed. See 'Overview of the Amendment to the Capital Accord to Incorporate Market Risks: The Use of Internal Models for Supervisory Purposes/ Treatment of Specific Risks' Basel Committee on Banking Supervision, Committees at the Bank for International Settlement Jan 1996, paragraph 19 http://riskinstitute.ch/BIS.htm (last visited 11 August 2009

[85] 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, July 2009 http://ec.europa/internal_market/bank/docs/regcapital/com2009/impact_assessment_en.pdf pages 45 and 46

[86] See also A Carvajal and others , The Perimeter of Financial Regulation' (2009) SPN/09/07 at page 4 of 17 <http://www.imf.org/external/pubs/ft/spn/2009/spn0907.pdf>

References

Basle bust“ *The Economist* April 13th 2000

Basel II: Minimum Capital Requirements’
http://www.bundesbank.de/bankenaufsicht/bankenaufsicht_basel_saeule1.en.php

Basel II: AMA Approval procedure’
http://www.bundesbank.de/bankenaufsicht/bankenaufsicht_basel_zulassungama.en.php

Basel Committee on Banking Supervision, Consultative Document, Standard Approach to Credit Risk, Supporting Document to the New Basel Accord at page 1 January 2001 <http://www.bis.org/publ/bcbsca04.pdf>

Capital Requirements and Bank Behaviour: The Impact of the Basel Accord’ Basel Committee on Banking Supervision Working Papers April 1999

Carvajal A and others , The Perimeter of Financial Regulation’ (2009) SPN/09/07 at page 4 of 17 http://www.imf.org/external/pubs/ft/spn/2009/spn0907.pdf

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, July 2009

Consultative Paper on a New Capital Adequacy Framework“ June 1999 < http://www.bis.org/press/p990603.htm>

Consultative Document on “Operational Risk” January 2001 Bank For International Settlements < http://www.bis.org/publ/bcbsca07.pdf

Gray J and Hamilton J, *Implementing Financial Regulation: Theory and Practice* (2006) 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> (last visited 31 July 2009)

Haines F, ‘Regulatory Failures and Regulatory Solutions: A Characteristic Analysis of the Aftermath of Disaster’, Law and Social Inquiry (2009) 30 at page 3; also see C Parker *The Open Corporation: Effective Self-Regulation and Democracy* 2002 Cambridge: Cambridge University Press

Saidenberg M and Schuermann T,The New Basel Capital Accord and Questions for Research (2003) Wharton Financial Institutions Center Working Paper 2003

Saunders A and Allen L, 'Credit Risk Measurement: New Approaches to Value at Risk and Other Paradigms' Second Edition Wiley Publishers

Supervision of Financial Services in the OECD Area: Financial groups, financial convergence and prudential supervision' page 4 < http://www.oecd.org/dataoecd/29/27/1939320.pdf>

Tarullo D,*Banking on Basel: The Future of International Financial Regulation* Peterson Institute for International Economics

The Fundamental Principles of Financial Regulation: Geneva Reports on the World Economy 11', Preliminary Draft 2009

The Internal Ratings Based Approach', Supporting Document to the New Basel Capital Accord 2001 http://www.bis.org/publ/bcbsca05.pdf

Observed Range of Practice in Key Elements of Advanced Measurement Approaches (AMA)" October 2006 Bank for International Settlements http://www.bis.org/publ/bcbs131.pdf?noframes=1

Overview of the Amendment to the Capital Accord to Incorporate Market Risks: The Use of Internal Models for Supervisory Purposes/ Treatment of Specific Risks' Basel Committee on Banking Supervision, Committees at the Bank for International Settlement Jan 1996