rma®
THE RISK MANAGEMENT ASSOCIATION
Serving the Financial Services Industry

1801 Market St. • Suite 300 • Philadelphia, PA 19103-1628 • Telephone 215-446-4000 • Fax 215-446-4101 • www.rmahq.org

May 24, 2007

Office of the Comptroller of the Currency
250 E. Street, S.W. Mail Stop 1--5
Washington D.C. 20219

Jennifer J. Johnson, Secretary
Board of Governors of the Federal Reserve System
20th Street and Constitution Avenue, NW
Washington D.C. 20551

Robert E. Feldman, Executive Secretary
Attention: Comments RIN 3064 - AC73
Federal Deposit Insurance Corporation
550 17th Street, NW
Washington D.C. 20429

Regulation Comments
Chief Counsel's Office
Office of Thrift Supervision
1700 G. Street, N.W.
Washington D.C. 20552
Attention: No. 2007 - 06

Industry Response to
Proposed Supervisory Guidance on
AMA for Operational Risk and the
Supervisory Review Process (Pillar 2) Re: Basel II
OCC Docket Number 2007-004
FRB Docket Number OP-1277
FDIC Re: Basel II Supervisory Guidance
OTS No. 2007-06

Ladies and Gentlemen:

On behalf of the Advanced Measurement Approaches Group (AMAG)[1], I am writing to convey our industry Group's response to your Proposed Supervisory Guidance on AMA for Operational Risk and the Supervisory Review Process (Pillar 2) Related to Basel II Implementation.

[1] The Advanced Measurement Approaches Group (AMAG) was formed in mid-2005 at the suggestion of the U.S. Inter-Agency Working Group on Operational Risk. The AMAG is open to any banking and/or financial institution regulated in the United States that is either mandated, opting in, or considering opting in to Basel II. A senior officer responsible for operational risk management represents each member institution on the AMAG. Of the twenty-two or so US banking institutions that are currently viewed as mandatory or opt-in Basel II institutions by the U.S. regulatory Agencies, fifteen are currently members of the AMAG. The Risk Management Association (RMA) provides the secretariat for the AMAG.

The AMAG supports the Advanced Measurement Approaches (AMA) under Basel II and its fundamental goals of improving operational risk management practices and ensuring capital adequacy. The AMAG believes that to achieve these goals, first and foremost, the AMA should promote flexible principles-based and risk-based methods for estimating capital and managing operational risk. Second, the AMAG strongly believes that a proper balance between management and quantification must be attained.

With these positions as background, we commend for your consideration the AMAG's comments on several aspects of the Supervisory Guidance that are deemed to be the highest priority to our members. We should note that although this letter and attachment reflect the collective view of the AMAG, it does not necessarily reflect the individual views of all members of the AMAG, and it is in no way intended to supersede the responses or priorities of any individual member, as outlined in their own response(s) to the Supervisory Guidance.

Notwithstanding its agreement with the spirit of AMA, the AMAG continues to be very concerned about the increased prescriptiveness with each incremental document and/or revision issued by the regulatory Agencies. In the case of the proposed Guidance, the Group has identified numerous small changes in language from the original ANPR Guidance document, most of which serve to make the implementation of AMA even more rigid. With the increased level of prescriptiveness, the regulatory community is running the risk of promulgating a form of risk management that is so compliance-based that it thwarts the benefits of the kind of thoughtful, ongoing research and analysis that brought operational risk management (ORM) to its current point of development and, if allowed to advance, would continue to provide improvements in this evolving discipline. Those performing ORM functions are already finding themselves more focused on complying with regulation than they are on implementing comprehensive risk management frameworks and/or systems that are uniquely structured to meeting the organizational needs and operational environments of their respective institutions.

The AMAG also disagrees with portions of the proposed Guidance, particularly those aspects that imply a level of precision that does not yet exist given the relative immaturity of the operational risk measurement discipline, and the relative paucity of loss data in a number of areas.

Following are highlights of the AMAG's response; further details are contained in the enclosed Response detail to this letter:

- **Board of Directors Oversight Responsibilities:** Standard Nos. 4, 5 and 10 to the Guidance relate to responsibilities or involvement of the Board of Directors. The AMAG agrees, in principle, that a bank's Board should be apprised of and be in a position to challenge operational risk management efforts. These Supervisory Guidance standards, however, place a significant burden on a bank's Board that, in some respects, resembles managerial responsibilities, rather than oversight activities that are more typical of a Board's role. A few examples are indicated below:
    - S.4 requires that the Board *evaluate effectiveness* of the AMA System.
    - S.5 requires that the Board and management *ensure appropriate integration* of the system.

  - The newly defined term "AMA System," in contrast to the term "AMA framework" referenced in the ANPR Guidance, is far reaching and places an unreasonable burden of detailed involvement on the Board.
  - There are other significant oversight changes from the ANPR Supervisory Guidance.

In short, the draft standards S.4 and S.5 demand a level of involvement in operational risk that is both unnecessary and inconsistent with Board-level oversight of other risks. The enclosed Response detail to this letter outlines specific concerns and requests for revision related to each of these Standards, but the AMAG is concerned about the disproportionate level of hands on responsibility that the Guidance places on the Board for operational risk relative to all of its other existing responsibilities.

Banks should be able to implement their respective frameworks and/or systems consistent with their organizations' existing governance policies and practices. For example, a bank's Board should be permitted to delegate these functions to senior executive management or a non-Board committee thereof. Additionally, it should be noted that the Board is also already required by existing regulations to receive and review various risk reports such as Safeguarding assets, Business Continuity Planning, Anti-Money Laundering and Terrorist financing, etc. It is the AMAG's assessment that the existing requirements and new AMA requirements have not been rationalized.

- **Reporting to the Board:** In contrast to S. 4 and S. 5, S.10 specifies required operational risk management reporting to the Board that is more typical of the Board program involvement and oversight role, however even here the frequency of reporting (i.e., quarterly) is excessively prescriptive. Although some banks may opt for quarterly reporting, and in some cases it may be warranted, the AMAG suggests that the Standard be worded such that the frequency is "on a risk-based schedule, but at least annually".

- **Unit of Measure:** This issue was raised in the AMAG's March 23, 2007 response (and attachment) to the proposed NPR and it applies in the context of the Guidance as well. In summary, first, Unit of Measure should not preclude the use of top-down approaches to capital estimation. Second, the AMAG requests replacement of the word "Appropriate" in S. 27 with "well reasoned, given current data availability". Third, the NPR language and the language of S.27 itself are inconsistent with the explanation that follows the Standard. The text would be clearer if the contradictory language about different risk profiles within a loss distribution was deleted and the term Unit of Measure re-defined by replacing the word *distribution* with the word *measure*.

- **Dependence:** This is another issue that the AMAG raised in its March 23, 2007 response to the NPR. First and foremost, there is no commonly accepted approach to dependence in operational risk capital estimation as yet. Therefore, "demonstration" is likely unachievable at this time. Second, it would improve both texts to define dependence as "*... a measure of the association among operational losses across and within units of measure.*" Third, the requirement to demonstrate that the process of estimating dependency meets several criteria should be based on empirical evidence that is currently available, whether it is statistical or anecdotal. Fourth, both the NPR and Supervisory

Guidance drafts should delete any generalization regarding top-down approaches and the masking of dependence and assumption of statistical independence.

- **Internal Controls:** S.3 states *"The bank must maintain effective internal controls supporting its AMA System."* The effectiveness of controls is typically assessed by internal audit on an ongoing basis and reported to senior management, based on approved audit plans. The requirement for a specific annual assessment of controls supporting the AMA system would be burdensome, with no discernible benefit. The audit review schedule should be risk-based and should be allowed to occur more or less frequently than annually, as appropriate to the risk. The AMAG requests that the word "annually" be replaced by "periodically, as appropriate, given a risk-based schedule".

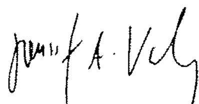
- **Supervisory Objectives and Approach:** The AMAG does not dispute that a primary supervisor has the option of requiring a different risk-weighted asset amount for operational risk than that developed by a bank on its own. The specific changes to a bank's operational risk analytical framework, processes and systems referenced in the text on SG p. 9171, however, would be extremely disruptive. It is the AMAG's sense that the Agencies' primary concern is not so much an interest in changing aspects of an OR analytical framework, but rather to confirm that "capital is reflective of risk". As such, the AMAG believes that this section should be revised, limited to address that concern, and action taken, if deemed by primary supervisor, under Pillar 2.

The enclosure to this letter outlines the Group's response positions in detail, including references to the text of the Rule and Supervisory Guidance (where applicable), discussion of each issue, and suggestions for improvement, as well as requests for specific revisions to the text.

Last, in addition to specific concerns about the Guidance, the AMAG notes that inconsistencies appear to have arisen between the text of the proposed rule and the Supervisory Guidance, as well as within the Supervisory Guidance itself, such as on the topics of Unit of Measure and loss policies and procedures. The AMAG response detail references specific instances.

Representatives of the AMAG would be pleased to meet with representatives of your Agencies to discuss our comments on the proposed Supervisory Guidance, as well as the NPR itself, if desired and deemed to be mutually productive. In the interim, please contact me at (704) 715-3657 should questions arise regarding this letter, enclosure, and/or the AMAG.

Sincerely,



Yousef A. Valine
Chair, *Advanced Measurement Approaches Group* (AMAG)

Enclosure: *AMAG Response: Proposed Supervisory Guidance for AMA*

<u>AMA Group Signatories</u>

Bank of America
Bank of New York
Citigroup**
Comerica
Goldman Sachs
HSBC
JP Morgan Chase**
KeyCorp
Sovereign Bank**
State Street Bank
SunTrust
Union Bank of California
Wachovia*
Washington Mutual

<u>Support Team</u>

The Risk Management Association
Operational Risk Advisors, LLC

Notes:

* AMAG Chair
** Steering Committee Member

AMAG Response:
Proposed Supervisory Guidance for AMA

Table of Contents

Introduction 2

(1) - Contradictory Language 2
(2) - Supervisory Objectives and Approach 3
(3) - "Systematic Process" and "Demonstrate" 4
(4) - Internal Controls (S.3) 5
(5) - Board of Directors and Mgt. Oversight Responsibilities (S.4 & S.5) 6
(6) - Reporting to the Board (S.10) 8
(7) - Capture and Maintenance of Elements (S.11) 9
(8) - Historical Observation Period (S.13) 10
(9) - Internal Loss Event Data Thresholds (S.16) 10
(10) - Internal Loss Event Data (Causal Info Requirement) (S.17) 11
(11) - Scenario Analysis (S.20) 11
(12) - BEICF Expectations on 'Current' and 'Comprehensive' (S.21) 12
(13) - BEICF Assessments vs. Loss Experience (S.22) 13
(14) - Analytical Framework (S.24 & S.25) 13
(15) - Eligible Operational Risk Offsets (S.26) 15
(16) - Unit of Measure (S.27) 15
(17) - Accounting for Dependence (S.28) 17
(18) - Risk Mitigation (S.29) 19
(19) - Documentation of Operational Risk Quant Systems (S.30) 20
(20) - Validation of AMA System (S.32) 20
(21) - Internal Capital Adequacy Assessment Process (ICAAP) 21

Attachment A - Summary of Board Responsibilities 23
Attachment B - Unit of Measure 25
Attachment C - Dependence 28

Introduction

During the course of the AMAG's side-by-side comparison of the Proposed Supervisory Guidance released in the Federal Register on February 25, 2007 to its predecessor ANPR Guidance, the Group identified numerous small changes in language from the latter document issued in 2003. The AMAG's discussions with regulatory Agency representatives prior to release of the NPR Guidance had left the AMAG with the impression that we should not expect major changes.

Although a number of the changes identified might fall into the category of clarifications, many others are characteristic of the expansion of rules and lengthening of requirement lists, and in a few cases imperative language references (i.e., "must" and "should") were changed. Individually, many of the changes appear minor, but collectively, they have the effect of far more prescriptive Supervisory Guidance overall.

Based on our informal Q&A meeting in Washington DC on 4/18/07 with regulatory Agencies (hereinafter referenced as 'the 4/18/07 meeting'), the AMAG understands that the changes were intended to be a clarification of issues in the SG, and reflective of the long evolution of the NPR. The implication was that the changes were not intended to be major, and Agency representatives suggested that the AMAG highlight changes that it deems to be major and/or problematical in a response to the Supervisory Guidance.

As such, in the following Response to the Proposed Guidance, the AMAG highlights instances of contradictory language, as well as major problematical changes in the language since the ANPR Guidance. The primary concern is less about the specific problematical change(s) in each case, but rather the cumulative effect of them. With each incremental regulatory requirement, operational risk management functions become less about managing risk, and more about regulatory compliance.

The issues outlined below generally track their order of appearance in the Supervisory Guidance (Federal Register Vol. 72, No.39). Reference pages are cited.

AMAG Issue (1) -- Contradictory Language

Reference (SG p. 9170)

Qualification Requirements, Supervisory Standards: This section of the Guidance includes the statement: *"This guidance should not be interpreted as weakening or superseding the safety and soundness principles articulated in existing … regulations or guidance issued by the Agencies."*

Discussion and Implications

In the course of reviewing the NPR and Guidance documents, the AMAG identified several instances of potentially contradictory language between the documents.

At the 4/18/07 meeting, the Agencies indicated that it had been their goal to be as consistent with the NPR as possible. They indicated that they appreciated receiving the AMAG's Unit of Measure example and requested that the AMAG provide any others that it might have identified.

As such, the following illustrative examples are provided:

- The detailed text for Standard No. 17 states: The bank's operational loss policies and procedures should consider the effect and treatment of operational loss events that are recovered within a short period of time. See our discussion for AMAG issue number 10, which addresses SG Standard 17, on pp.11-12, below.
- Unit of Measure: The AMAG has provided an excerpt of its response to the NPR on Unit of Measure, which provides an example of contradictory language (see Attachment A).

Suggestions

With reference to the examples identified:

- Operational Loss policies and procedures: Standard 17 - The AMAG requests that this last sentence be removed from the Guidance.
- Unit of Measure: The AMAG reiterates the position taken in its NPR response in AMAG issue # 17, below and outlined completely in Attachment A.

AMAG Issue (2) -- Supervisory Objectives and Approach

Reference (SG p. 9171)

The Guidance states that *"In performing their evaluation, the Agencies will exercise supervisory judgment in evaluating both the individual components and the overall AMA System. The NPR provides that the primary Federal supervisor may require a bank to assign a different risk-weighted asset amount for operational risk, to change aspects of its operational risk analytical framework (for example, distributional or dependence assumption), or to make other changes to the bank's operational risk management processes, data and assessment systems, or quantification systems if the supervisor determines that the risk-weighted asset amount for operational risk produced by the bank is not commensurate with the bank's operational risk profile…."*

Discussion and Implications

The AMAG does not dispute that a primary supervisor has the option of requiring a different risk-weighted asset amount for operational risk. The specific changes to a bank's operational risk analytical framework, processes and systems referenced in the text, however, would be extremely disruptive. The full implementation of a bank's AMA System may take years. Once set in place, and approved during the Qualification phase, a bank cannot easily change components of its analytical framework, process and/or systems, nor should it be expected to.

The AMAG understands that this section was intended to be more or less based on traditional language used by the Agencies in NPR's. Based on our exchange on this topic at the 4/18/07 meeting it was the AMAG's sense that the Agencies' primary concern is not so much an interest in changing aspects of an operational risk analytical framework, but rather to confirm that "capital is reflective of risk". One representative asked whether the AMAG would be more comfortable if the Agencies removed the language about making changes to the analytical framework.

Suggestions

First, the AMAG believes that changes that a bank's primary supervisory feels are warranted, to ensure the risk-weighted asset amount produced by the bank is commensurate with the bank's operational risk profile, should be limited to Pillar 2

Second, the AMAG requests deletion of the following language:

> "*… to change aspects of its operational risk analytical framework (for example, distributional or dependence assumption), or to make other changes to the bank's operational risk management processes, data and assessment systems, or quantification systems…"*

Third, the AMAG requests that the words "and apply benchmarks" be inserted before the words *"in evaluating both…"* and the words "and indicate what benchmarks had been applied" after the words *"… a difference risk-weighted asset amount for operational risk.*"

AMAG Issue (3) -- "Systematic Process" and "Demonstrate"

Reference

The words "systematic process" and/or "demonstrate" are used throughout the Supervisory Guidance. "Systematic process" is used in Standards 11, 13, 18, 20, as well as in the supporting text for S. 20 and in the definition of Scenario Analysis. Demonstrate is used in supporting text and/or Standards 4, 5, 13-17, 23-25, 26, 28, 29, 30, as well as in the supporting text for Qualification Requirements and ICAAP.

Discussion and Implications

Although the AMAG concurs with the need for rigor in capital estimation, it is also very concerned about the potential interpretation of these terms. If interpreted in the most conservative sense, these words can suggest a level of rigor and/or maturity of the operational risk discipline beyond its actual stage in the evolutionary path. For example, "to demonstrate" could entail proving and providing clear and certain evidence. Operational risk measurement and management is still evolving and, in many cases, the best that can be reasonably achieved at this time is well reasoned, thoughtful and well-documented consideration, rather than a "demonstration".

It is important that reasonability be incorporated into the implementation of the AMA in the U.S., to reflect the complexity involved, stage of development, and the qualitative judgment necessary in a number of areas. The AMAG believes that a practical implementation of Pillar I can serve as a catalyst for the development of operational risk management and measurement practices. Over time, this could lead to more consistency, greater transparency, comparability between institutions, improved disclosure, and more effective industry practice. Initially setting the bar beyond what is currently feasible, however, could lead to undesirable outcomes and/or unintended consequences.

Suggestions

The AMAG has attempted to cite the use of "systematic process" and "demonstrate" throughout this Response, along with requested replacements. Whether or not cited, however, the AMAG requests use of different terminology that would be more consistent with the state of operational risk management development, such as use of a term such as a (e.g., "thoughtful procedure" instead of "systematic process" or "explain and document" instead of "demonstrate"). Alternatively, the terms "systematic process" and "demonstrate" could be defined in the text to interject a reasonableness test.

AMAG Issue (4) -- Internal Controls (S.3)

Reference (SG pp. 9172-9173)

Standard No. 3 states *"The bank must maintain effective internal controls supporting its AMA System."*

The supporting text requires that internal audit assess the effectiveness of internal controls annually, continuing with *"…Sound internal controls, assessed annually for effectiveness by internal audit, should also reduce the possibility of significant human errors and irregularities in internal processes and systems, and should assist in their timely detection when they do occur. The audit function's annual assessment is not required to assess all operational risk controls, but the scope of the assessment should be sufficient to assess the effectiveness of the controls supporting the bank's AMA System…." (Emphasis added)*

Discussion and Implications

The effectiveness of controls is assessed by internal audit on an ongoing basis and reported to senior management, based on approved audit plans. The requirement for a specific annual assessment of controls supporting the AMA system would be burdensome, with no discernible benefit.

Suggestions

The audit review schedule should be risk-based and may occur more or less frequently than annually, as appropriate to the risk. The AMAG requests that the word "annually" be replaced by "periodically, as appropriate, given a risk-based schedule".

AMAG Issue (5) - Board of Directors and Mgt. Oversight Responsibilities (S.4 and S.5)

Two standards in the Guidance refer to Board of Directors and Management oversight. We include them here as AMAG issues 5 (a) and 5 (b), below.

5 (a) – Annual Evaluation of the Bank's AMA System

Reference (SG p. 9173)

Standard No. 4 states ***"…****The board of directors must at least annually evaluate the effectiveness of, and approve, the bank's AMA System, including the strength of the bank's internal control infrastructure." (*AMA System is defined to mean a bank's *"advanced operational risk management processes, operational risk data and assessment systems, and operational risk quantification systems").* (Emphasis added)

Among other specifics referenced in the detailed text, additional language continues with*: "Information provided to the board of directors for the AMA review should be detailed enough for the bank's board members to understand and evaluate its AMA system"* (sources of information are outlined in SG footnote #11.) (Emphasis added)

5 (b) – Ensure Integration of the AMA System

Reference (SG p. 9173)

Standard No. 5 states *"The board of directors and management should ensure the AMA System (defined above) is appropriately integrated into the bank's existing risk management and decision-making processes and that there are adequate resources to support these processes throughout the bank."* (Emphasis added)

Discussion and Implications

These standards reflect significant changes from the ANPR Supervisory Guidance. In that previous Guidance, reference was made to the “AMA framework”. Inclusion of the newly defined term “AMA System”, on the other hand, is far reaching and places an unreasonable burden of detailed involvement on the Board. In addition, insertion of the phrase “…evaluate the effectiveness…” will likely have even greater and, the AMAG believes, unintended meaning and consequences relative to Board involvement and responsibilities.

Prior to the 4/18/07 meeting the AMAG and RMA’s Capital Working Group provided Attachment A – Summary of Board Responsibilities to the Agency representatives at that meeting. The AMAG also referenced S.4, and spent some time on this point for illustrative purposes. We noted that the Board’s participation in “evaluating the effectiveness” and its implied involvement in accuracy of computations, as might be interpreted from S.4, could be taking Board responsibility to an unintended extreme. In response, the Agencies seemed to acknowledge that this might be a fair point and solicited suggestions.

In short, the draft standards S.4 and S.5, and other Board Responsibilities suggest a level of Board involvement in operational risk that is both unnecessary and inconsistent with its oversight of other risks, and imply more of a managerial role than a Board role. Banks should be able to implement their respective frameworks and/or systems consistent with their organization’s existing governance policies and practices. For example, a bank's board should be permitted to delegate these functions to senior executive management or a non-board committee thereof. Additionally, it should be noted that the Board is also already required by existing regulations to receive and review various risk reports such as Safeguarding assets, Business Continuity Planning, Anti-Money Laundering and Terrorist financing, etc. It is our assessment that the existing requirements and new AMA requirements have not been rationalized.

Suggestions

First, the Board should have the discretion to delegate authority for the oversight of the implementation and ongoing assessment of the AMA system to senior management, or senior oversight committees or structures.

Second, under Standard 4, the AMAG requests that the words “Board of Directors” be replaced with “Management”. Then, it would be reasonable for management annually to report to the Board on its findings.

Third, with reference to Standard 5, the AMAG requests that the words “Board of Directors” be removed here, as well.

Fourth, the AMAG requests that the word “annually” be replaced with “periodically, as appropriate”. A less preferable alternative would be use of the phrase ”on a risk sensitive schedule, as appropriate”.

AMAG Issue (6) - Reporting to the Board (S.10)

Reference (SG p. 9174)

Standard No. 10 states *"The board of directors and senior management must receive reports on operational risk exposure, operational risk loss events, and other relevant operational risk information. The reports should include information regarding firm-wide and business line risk profiles, loss experience, and relevant business environment and internal control factors assessments. These reports should be received quarterly."* (Emphasis added)

The supporting text states: *"Comprehensive management reporting, geared toward the firm-wide operational risk management function and line of business management, should include…" several bullet points, among them: "changes in factors signaling an increased risk of future losses" and "Operational risk causal factors."* (SG p. 209)

Discussion and Implications

Practically speaking, the requirement to produce comprehensive management reports including *"changes in factors signaling an increased risk of future losses"* cannot be met at this point in time or in the near future. In many instances, operational risk factors that led to a particular event cannot be uniquely determined retrospectively, let alone detecting a change in factors that *signals* an increase in future losses. Today, management relies on diverse information such as RCSA and audit results, KRI, past loss experience, external events or scenario analysis to arrive at a judgment on the level of and change in risk. A change in the level of risk may signal future loss or it may signal a change in the frequency and severity of future losses. A *direct* relationship between a change in risk and future losses has not been proven definitively except perhaps for highly predictable routine losses, where the amount of available and relevant data supports such a relationship.

With reference to S.10 and the other requirements of the Board of Directors, Attachment C was submitted and discussed with the Agencies as part of the complete 4/18/07 meeting package. It consists of proposed Board participation, which either directly or indirectly involves AMA.

Suggestions

First, the AMAG requests that the word "quarterly" be replaced with "on a risk-based schedule, but at least annually" in S.10.

Second, the AMAG requests that the words "or designated committees" be inserted after "the Board of Directors" in S. 10.

Third, the AMAG requests that the two bullet points referenced above under S. 10 (i.e., "*changes in factors signaling an increased risk of future losses" and "operational risk causal factors")* be deleted. A less preferred alternative would be to combine and replace both bullet points with "other information predictive of operational risk". As a third, least preferred alternative, they could be replaced with "if possible, changes in factors signaling an increased risk of future losses".

AMAG Issue (7) -- Capture and Maintenance of Elements (S.11)

Reference (SG pp. 9174-9175)

Standard No. 11 states *"The bank must have a systematic process for incorporating internal loss data, external loss event data, scenario analysis and assessments of its business environment and internal controls."* (Emphasis added)

The supporting text includes the following: *"As part of its AMA System implementation, a bank should demonstrate that it has established a consistent and comprehensive process for the capture of all four required elements."* (Emphasis added)

The text also states*: "The bank should demonstrate that the four elements jointly cover all significant operational risks to which it is exposed."* (Emphasis added)

Discussion and Implications

Given the relative immaturity of operational risk measurement and management, demonstration is not achievable at this time or in the near future. To demonstrate would call for proving and providing clear and certain evidence. Operational risk measurement and management is still evolving and the best that can be reasonably achieved at this time is well reasoned, thoughtful and well-documented consideration, rather than demonstration.

Suggestions

The AMAG requests replacing the sentence: *"The bank should demonstrate that the four elements jointly cover all significant operational risks to which it is exposed"* with *"The bank should consider and document the manner in which the four elements are reasonably expected to jointly cover all significant operational risks to which it is exposed".*

AMAG Issue (8) - Historical Observation Period (S.13)

Reference (SG p. 9175)

Standard No. 13 states *"The bank must have a historical observation period of at least five years for internal operational loss event data. A shorter period may be approved by the primary Federal supervisor to address transitional situations, such as integrating a new business line. Internal data should be captured across all business lines, corporate functions, events, product types, and geographic locations. The bank must have a systematic process for capturing and using internal operational loss event data in its operational risk data and assessment systems."*

Discussion and Implications

The AMAG believes that each bank should have the flexibility to select the appropriate time period for using internal data in its AMA System that reflects the relevance of the historical loss data to the particular process within the AMA system. That is, depending on the process, the appropriate period may vary. For example, the appropriate period for frequency may be much shorter than the appropriate period for severity.

Suggestions

The AMAG requests revision of S.13 as follows: insert "provided the relevance of the historical loss data to the particular process within the AMA system" after *"at least five years for internal operational loss event data".*

AMAG Issue (9) - Internal Loss Event Data Thresholds (S.16)

Reference (SG p. 9175)

Standard No. 16 states: "The bank may establish appropriate internal operational loss event data thresholds and, if so, must demonstrate the appropriateness of such thresholds."

Discussion and Implications

Similar to the discussion of Standard 11, the relative scarcity of data in many cases makes a strict *demonstration* difficult if not impossible, at this time.

Suggestions

The AMAG requests replacing "demonstrate" with "explain".

AMAG Issue (10) - Internal Loss Event Data (Causal Information Requirement) (S.17)

Reference (SG p. 9175)

Standard No. 17 states: *"The bank should have a clear policy that allows for the consistent treatment of loss event classification."*

The supporting text states: "The description of the loss event, including causal factors, should be collected for internal operational loss events."

The supporting text also states: *"The bank's operational loss policies and procedures should consider the effect and treatment of operational loss events that are recovered within a short period of time."* (Emphasis added)

Discussion and Implications

AMAG members believe that it would not be cost justified to require the collection of causal factors on small loss events. An exception to the Guidance should be provided to reflect reasonableness.

This last sentence, in the Reference section, above, may be inconsistent with the definition of "operational loss", which appears on page 9171 of the Guidance. Certain errors that may be reversed within a short period of time, (with very little risk), for which there is no required charge under GAAP to record a financial statement loss are, and should remain, outside of the definition of reportable operational risk loss events.

Suggestions

The AMAG requests that banks be permitted to establish a reasonable operational loss event data threshold for the collection of causative information.

The AMAG also requests that the sentence, *"The bank's operational loss policies and procedures should consider the effect and treatment of operational loss events that are recovered within a short period of time",* be removed from the Guidance.

AMAG Issue (11) – Scenario Analysis (S.20)

Reference (SG p. 9176)

Standard No. 20 states *"The bank must have a systematic process for determining how scenario analysis will be incorporated into its operational risk data and assessment systems."*

In addition, the supporting text states: *"Scenario analysis allows the bank to incorporate forward-looking elements into its operational risk data and assessment systems. More specifically, scenario analysis is a systematic process of obtaining expert opinions from business and risk managers to derive reasoned assessments of the likelihood and loss impact of plausible high-severity operational losses that may occur at a bank.*"

Discussion and Implications

The AMAG appreciates that it may be an objective of scenario analysis to achieve "forward-looking" elements, but these are subjective, at best, and likely may not be achievable in all cases. In some cases, scenario analysis may be valuable to simply achieve additional depth of information about current exposures/elements.

Suggestions

The AMAG requests that: "additional elements or" be added after "incorporate" in the first sentence and that "or relative likelihood" be added after "likelihood", in the second sentence.

The new text should read: *Scenario analysis allows the bank to incorporate additional elements or forward-looking elements into its operational risk data and assessment systems. More specifically, scenario analysis is a systematic process of obtaining expert opinions from business and risk managers to derive reasoned assessments of the likelihood or relative likelihood and loss impact of plausible high-severity operational losses that may occur at a bank.*

AMAG Issue (12) – BEICF - Expectations on 'Current' and 'Comprehensive' (S.21)

Reference (SG pp. 9176-9177)

Standard No. 21 states ***"****The bank must incorporate business environment and internal control factors into the bank's risk data and assessment systems."*

Underlying comments include the following: *"These assessments should be current and comprehensive across the bank, and should identify the critical operational risks facing the bank".* (Emphasis added)

Discussion and Implications

Key Risk Indicators (KRI) are one of the tools that are becoming a cornerstone of the industry's response to this BEICF Standard. KRI's can be both historical and "current", however (i.e., projections based on historical data and current year data). The goal, of course, is to distill forward-looking indicators from lagging indicators, but this goal has not yet been fully attained. As written, use of the word "current" in the supporting text to

this standard could inadvertently exclude a major portion of useful indicators; depending on how strictly the word "current" is interpreted.

Suggestions

The AMAG requests that the word "current" be deleted and replaced with "risk-based".

AMAG Issue (13) – BEICF Assessments vs. Loss Experience (S.22)

Reference (SG p. 9177)

Standard No. 22 states *"The bank must periodically compare the results of its business environment and internal control factor assessments against the bank's actual operational risk loss experience."*

Discussion and Implications

The supporting text states: *"Business environment and internal control factors are indicators of the bank's operational risk profile that reflect the underlying business risk factors, an assessment of the current internal control environment, and a forward-looking assessment of the bank's control environment."*

Suggestions

The AMAG requests deletion of "forward looking". Generally speaking, assessments reflect the state at the time of the assessment and it is not generally possible to assess the future state of controls.

AMAG Issue (14) -- Analytical Framework (S.24 and S.25)

References (SG p. 9178)

Standard 24 states *"The bank's operational risk quantification system must use a combination of internal operational loss event data, relevant external operational loss event data, business environment and internal control factor assessments, and scenario analysis results. The bank should combine these elements in a manner that most effectively enables it to quantify its operational risk exposure. The bank should choose the analytical framework that is most appropriate to its business model."*

Standard 25 states that *"The bank must review and update its operational risk quantification system whenever it becomes aware of information that may have a material effect on the bank's estimate of operational risk exposure or risk-based capital requirement for operational risk, but no less frequently than annually. A complete review*

and recalculation of the bank's quantification system, including all modeling inputs and assumptions, must be done at least annually. " (Emphasis added)

The explanatory detail goes on to state that *"…Banks should be able to demonstrate (see Standard 30) the effect of each element on the operational risk exposure estimate. In cases where this is not possible, or where an element is not used as a direct input into the quantitative model, the bank should calculate a benchmark estimate using that element individually".* (Emphasis added)

Discussion and Implications

Because the four elements are used in combination to generate an estimate of exposure, the isolation of the impact of any single element is not always feasible or relevant. For instance, external data may be used in the model directly in order to generate a reasonable capital number and/or to bring stability to the exposure calculation. In this case, while it may be technically possible to model without external data the results would not be meaningful. Similarly, the requirement to calculate a benchmark from an element not directly input into the quantitative model may not be feasible or relevant. For instance if the result of a scenario analysis process is a set of stress losses, or the use of "well-reasoned, external data", as allowed for in S.20, the results cannot be used as a benchmark without employing some type of model to generate an aggregate loss estimate.

Suggestions

In essence, this is a good illustration of an instance in which demonstration is not generally possible. As Standard 30 requires, it should be sufficient to document a reasoned and thoughtful consideration of the effects.

It would be reasonable to expect that banks can adequately explain the rationale for directly including or excluding each of the four elements in/from the calculation, without specifically requiring irrelevant calculations and/or the creation of benchmarks. Wherever the effects of a given element can be shown with relevance and without a benchmark, this could be required (e.g., an ex post facto adjustment of an initial exposure calculation to reflect Business Environment and Internal Control Factors (BEICF's).

As a separate item, based on the discussion in the 4/18/07 meeting, it was the sense of the meeting that the essence of Standard 25 is to seek changes to input, not the structure. As such, the AMAG requests that the word "input" should be added in Standard 25 as follows: *"The bank must review and, where appropriate, update the inputs to its operational risk quantification system …"*

In addition, as to the question of 'senior management' involvement, it is the AMAG's sense that the intent was that 'someone in a fairly senior position' be involved in and approve the changes. As such, the AMAG requests that the language be revised to read "Senior management, or other appropriate governing body, should approve the components of the quantification system that need to be revised …"

AMAG Issue (15) -- Eligible Operational Risk Offsets (S.26)

Reference (SG pp. 9178-9179)

Standard No 26 states *"In calculating the risk-based capital requirement for operational risk, management may deduct certain eligible operational risk offsets from its estimate of operational risk exposure. To the extent that these offsets do not fully cover expected operational loss (EOL), the bank's risk-based capital requirement for operational risk must incorporate the shortfall. Eligible operational risk offsets may only be used to offset EOL, not UOL."*

The supporting text continues with *"…While additional eligible operational risk offsets may be considered in the future, the Agencies' review of the implementation of AMA Systems indicates that banks so far have only been able to demonstrate that losses resulting from external credit card fraud or securities processing errors may meet the test of being highly predictable and reasonably stable.…"*

Suggestions

The eligibility for operational risk offsets should be allowed in all circumstances that conform to the criteria defined in the rule, and not limited to only the two examples identified.

AMAG Issue (16) – Unit of Measure (S.27)

Reference (SG p. 9179)

Standard 27 states *"The bank must employ a unit of measure that is appropriate for the bank's range of business activities and the variety of operational loss events to which it is exposed, and that does not combine business activities or operational loss events with different risk profiles within the same loss distribution."*

Discussion

We repeat our discussion on Unit of Measure from the AMAG's March 23, 2007 NPR response here (see Attachment B for the full text):

> "In addition to our Introductory Comment on prescriptiveness and lack of flexibility, this NPR language and the language of Standard No. 27 itself are not consistent with the explanation that follows the Standard. The S.27 and NPR language preclude the use of top-down approaches because a loss distribution estimated on a firm-wide basis will certainly combine *'… business activities or operational loss events with different risk profiles within the same loss distribution.'*

> "The language following S.27, however, explicitly allows for top-down capital estimation approaches. It also goes from a single criterion – homogeneous risk profiles – to two criteria – homogeneity of risk profiles and data sufficiency.
>
> "The AMAG has recently inventoried its range of practices on capital estimation, and observed that its membership is largely divided between the use of bottom up and top down estimation methodologies. In light of the Supervisory Guidance clarifying text, it is the AMAG's belief that the agencies do not intend to preclude use of top down methods."

A number of US banks face significant challenges in selecting the "...appropriate (Unit of Measure) for their range of business activities and the variety of operational loss events to which they are exposed..." due to insufficient sample of operational risk loss events found while determining homogeneous distributions.

Focus on the Loss Distribution Approach in combination with Unit of Measure, as written, could place an undue weighting on the sample sizes of historical operational loss events. That is, Unit of Measure will be defined both on homogeneity of loss distributions and sample size, with the result that two banks with similar risk profiles, but dissimilar loss histories, could have different Units of Measure. In addition, the role of individual loss events in determining the statistical properties of these units of measure may be inadvertently and unwisely emphasized.

This specific challenge demands more flexibility from the US Regulators in reviewing the selection of the appropriate Unit of Measure for each bank and therefore would also suggest the language of the NPR and Supervisory Guidance should be revised to reflect this flexibility.

Suggestions

Here, too, we provide our previous text on Unit of Measure from our AMAG March 23, 2007 NPR response. For reference, as follows:

> "In view of the industry's range of practices at the present time, the AMAG believes that some clarification of the language in the proposed rule and the Supervisory Guidance would be important. The members are largely aligned in their thinking about this issue, and are in complete agreement on the specifics of suggestions for improving the language.
>
> "The AMAG proposes that one possible solution would be to leave much of the language intact, with the following exception. In the definition, the words: *distribution of potential operational losses* should be replaced with *measure for potential operational losses*. Otherwise, the proposed definition of unit of measure could be left intact.
>
> "In addition, contradictory language that currently appears in the text should be stricken. That is, delete:

> *'… bank must [also] demonstrate that it has not combined business activities or operational loss events with different risk profiles within the same loss distribution.'* (Federal Register Vol. 71, No. 185, p. 55852)

Also, delete:

> *'…and that does not combine business activities or operational loss events with different risk profiles within the same loss distribution.' (Supervisory Guidance p. 219)*

Last, the AMAG requests replacement of the word "appropriate" in Standard 27 with "well reasoned given current data availability".

Some AMAG members believe that because agreement on precise specification of the Units of Measure to be analyzed by banks is unlikely, that the concept be eliminated from the NPR and Guidance altogether.

AMAG Issue (17) -- Accounting for Dependence (S.28)

Reference (SG p. 9179)

Standard 28 states *"The bank may use internal estimates of dependence among operational losses within and across business lines and operational loss events if the bank can demonstrate to the satisfaction of its primary Federal supervisor that the bank's process for estimating dependence is sound, robust to a variety of scenarios, and implemented with integrity, and allows for uncertainty surrounding the estimates. If the bank has not made such a demonstration, it must sum operational risk exposure estimates across units of measures to calculate its total operational risk exposure."* (Emphasis added)

Discussion and Implications

Estimating dependence is an issue that has been widely discussed in the industry, with academics, and with regulators, without the emergence of any commonly accepted approach or guidelines as yet. Industry practitioners continue to explore alternative approaches to modeling operational risk dependency. Given the available data, however, robust empirical tests that allow the differentiation between alternative approaches continues to be a challenge. The assessment of the appropriateness of dependency assumptions cannot simply and solely rely on empirical demonstration.

The proposal to sum the exposure estimates in the absence of required demonstrability has two fundamental drawbacks:

(i) It is unsupported by any empirical analysis and will result in a punitive and unrealistic increase in capital in almost any circumstance.

(ii) It provides the strongest disincentive for institutions to fully and appropriately investigate relevant units of measure. The potential for regulators to require the simple aggregation of capital across units of measure will drive banks to reduce units of measure to the lowest number possible consistent with the conditions outlined in S 27.

Similarly the assertion that *"dependence may not be constant over time and may increase during stress environments"* has not been demonstrated empirically. It can equally be argued in other circumstances that operational risk decreases in stress situations (e.g. in a recession, drops in business volume may result in fewer losses).

The statement that *"Banks should not restrict dependence structures to those based on normal distributions, as normality may underestimate the amount of dependence between tail events."* is an assertion that is extremely difficult for a bank to test empirically.

Since capital calculations for operational risks typically are driven by the few large events found in the tail of the loss severity distribution, correlations between tail events may be the most meaningful to consider. It is difficult to envision a time when there will be enough events to quantify such correlations.

In the absence of sufficient sample of events (particularly tail events), the Supervisory Guidance should permit banks to present theoretical or heuristic arguments for their individual views on dependence. Such arguments, if accepted, would constitute good use of sparse data and, simultaneously, be consistent with the original spirit of the AMA.

In summary, the industry should be encouraged to continue model development in this area. Banks should be able to pursue a level of measure appropriate to their organization and circumstances, together with an approach to dependence that in combination will produce a realistic result reflective of the risk profile. The assessment of the appropriateness of dependence assumptions cannot simply rely on statistical/empirical demonstration alone, but must provide for banks' discretion in their assumptions and ultimately rest on the reasonability of the result.

Suggestions

In our March 23, 2007 response to the NPR, the AMAG commented on Dependence language in both the NPR and Supervisory Guidance. The suggestions portion of that text is, therefore, relevant and repeated here, as follows (see Attachment C for the full text).

> "It would improve both texts to define dependence as "… *a measure of the association among operational losses across and within units of measure*."
>
> "In addition, the AMAG believes that the following language should be stricken from the text:
>
> > *'… the bank must sum operational risk exposure estimates across units of measure to calculate its operational risk exposure.'*

> "The AMAG sees this as an important issue not simply for its unreasonable prescriptiveness and excessive conservatism. In addition, there is no such requirement about summing operational risk exposure included in either the Basel II Capital Accord or the European CRD.
>
> "The requirement to demonstrate that the process of estimating dependency meets appropriate criteria should be based on empirical evidence that is currently available, whether it is statistical or anecdotal. Then the demonstration should be either based on established statistical techniques, more general mathematical approaches, or on clear logical argument regarding the presence or absence of relationships between the causes of different risks and losses, or regarding the similarity of circumstance between the bank and a peer group for which acceptable estimates of dependency are available. If no demonstration is forthcoming, then a conservative assumption of positive dependence is warranted, but not an assumption of perfect positive dependence (i.e., summing the exposure estimates).
>
> "Last, the AMAG believes that both drafts should delete any generalization regarding top-down approaches and the masking of dependence and assumption of statistical independence. If the regulatory agencies wish to express a preference that top-down approaches should not mask dependence and not assume independence, then it would be reasonable to say so."

Given the relative immaturity of operational risk measurement and management, the AMAG believes that demonstration may not be achievable at this time in any event.

The AMAG requests replacement of Standard 28 with the following:

"The bank may use internal estimates of dependence among operational losses within and across business lines and operational loss events if the bank can explain to the satisfaction of its primary Federal supervisor that the bank has a well reasoned approach to considering dependence and that the approach is considered robust to a variety of scenarios, implemented with integrity, and allows for uncertainty surrounding the estimates.."

AMAG Issue (18) -- Risk Mitigation (S.29)

Reference (SG pp. 9179-9181)

Standard 29 states *"The bank may adjust its operational risk exposure results by no more than 20 percent to reflect the impact of operational risk mitigants. In order to recognize the effects of risk mitigants, management must estimate its operational risk exposure with and without their effects."*

Discussion and Implications

The 20% figure is an arbitrary ceiling. The banks, independently and in association, together with the brokers and insurance companies are engaged in developing more

comprehensive solutions to risk transfer than those that exist today. The existence of a healthy risk transfer market will aid in the safety and soundness of banks. Imposing a ceiling will restrict not only the benefit to a single bank, but also the potential size of the risk transfer market, and consequently impede the development of sound risk mitigation tools.

Suggestions

The AMAG requests that the 20% ceiling be lifted.

AMAG Issue (19) -- Documentation of Operational Risk Quantification Systems (S.30)

Reference (SG pp. 9181)

Standard 30 states "The bank must document all material aspects of its AMA System. This documentation should include the rationale for the development, operation, and assumptions underpinning its chosen analytical framework, including the choice of inputs, distributional assumptions, and the weighting across qualitative and quantitative elements." (Emphasis added)

Discussion and Implications

The phrase "all material aspects" is too vague and could be subject to differing interpretation by banks and/or regulatory examination teams. It may, then, place an unreasonable burden on the industry.

Suggestions

The AMAG requests that this Standard be re-phrased as follows: "The bank must document all material aspects of the rationale for the development, operation, assumptions underpinning its chosen analytical framework, including the choice of inputs, distributional assumptions, and the weighting across qualitative and quantitative elements of its AMA System."

AMAG Issue (20) – Validation of AMA System (S.32)

Reference (SG p. 9182)

Standard 32 states *"The bank must validate, on an ongoing basis, its AMA system. The bank's validation process must be independent of the AMA System's development, implementation, and operation, or the validation process must be subject to an independent review of its adequacy and effectiveness."* (Emphasis added)

The supporting text includes: *"The validation process must also require the bank to periodically stress test its quantitative and qualitative models. Stress testing must include a consideration of how economic cycles, especially downturns, affect the bank's operational risk-based capital requirement."* (Emphasis added)

In addition, the supporting text states *"Appropriate reports summarizing the results of independent verification and validation of the bank's AMA System, including associated models, should be provided to the board of directors and appropriate management. The board of directors should ensure that senior management initiates timely corrective action where necessary."* (Emphasis added)

Discussion and Suggestions

First, the AMAG requests that: *"ongoing"* should be replaced with *"periodic and as appropriate."* The AMAG believes that there is no value in re-validating when there has been no change or in the absence of change, more frequently than annually.

Second, the AMAG also recommend the addition of *"as appropriate"* to the sentence beginning *"The validation process should address…"* For example, given a lack of data, robust out-of-sample testing may not be meaningful in most situations and therefore may not be appropriate under those circumstances.

Third, the AMAG requests removing the requirement that stress testing include consideration of economic cycles. The maturity of operational risk management and measurement, even within industry leaders, does not make this requirement practicable at this time.

Fourth, the AMAG believes that the board of directors should have the discretion to delegate authority for the oversight of the implementation and ongoing assessment of the AMA system to senior management, including analyzing the results of independent verification and validation of the bank's AMA system.

AMAG Issue (21) -- Internal Capital Adequacy Assessment Process (ICAAP)

Reference (SG pp.9190-9193).

The discussion of ICAAP is included under a section entitled Proposed Supervisory Guidance on the Supervisory Review Process (Pillar 2). Although many risk professionals would agree in principle with its content, the section is written in a informational style that does not provide specific rules or requirements, per se. Instead, to a large degree it appears to provide risk management practice options to institutions for their internal processes. As such, it also might imply unreasonably extensive latitude for Pillar 2 enforcement.

Discussion and Implications

Clearly this discussion of risk management exceeds the regulatory requirements and industry practices in some instances. As written the section could provide extensive scope for field examiners to find fault with virtually any bank's risk management program.

In elaborating on ICAAP at the 4/18/07 meeting, Agency representatives indicated that the section has its basis in regulatory safety and soundness standards. Agency representatives indicated that there are many ways in which ICAAP can be met. They went on to say that the ICAAP section was their attempt at outlining some minimum standards. When questioned about this point, and we suggested that some might view parts of their ICAAP description as aspirational standards, rather than minimum requirements, Agency representatives encouraged the AMAG to identify specific parts of the description that might be deemed to be unrealistic and/or unreasonable given the current range of practices in operational risk.

Some illustrative examples of aspirational goals relative to operational risk, for some banks include, but would not be limited to:

- "Each bank that uses the U.S. Advanced Framework … should not rely solely upon the assessment of capital adequacy at the parent company level", which at an extreme interpretation might preclude use of top-down capital estimation.
- *"Many banks currently employ "economic capital' measures for some elements of risk management."* Although true in market and credit risk, given the breadth and prescriptiveness of the AMA rules, this may not include operational risk management for some banks in the near future.
- *"An effective ICAAP should assess risks across the entire bank."* This statement could be subject to broad interpretation with respect to legal entities, subsidiaries, and profit centers vs. the Level I and II Business Lines designated under Basel II.
- *"A satisfactory ICAAP comprises … proper oversight and controls",* which could leave much room for interpretation.

Suggestions

The AMAG supports the principles underscored by ICAAP overall, but strongly suggests that the Agencies recognize the evolutionary nature of such Guidance relative to operational risk management, and apply a reasonableness test as they develop AMA examination guides and workplans.

Attachment A: Summary of Board Responsibilities

Board of Directors – Summary of Basel II Responsibilities

	Requirement	**Timing**	**Source(s)**
1.	Board (or a designated committee of the board) must evaluate the effectiveness of and approve the bank's advanced systems.	At least annually	[SG] CR-S 1-3 [NPR] Section 22(j)(2)
2.	Internal audit must assess the effectiveness of the controls supporting the IRB system and report its findings to the Board (or a committee thereof).	At least annually	[SG] CR-S 7-6
3.	The Board must approve the bank's written implementation plan to comply with qualification requirements	One off	[SG] Appendix C, B8 [NPR] Section 21.b.8
4.	The Board must evaluate the effectiveness of, and approve, the bank's AMA System, including the strength of the bank's control infrastructure.	At least annually	[SG] OR- S 4
5.	Banks may use independent and qualified internal (e.g., internal audit) or external parties to perform verification and validation. These functions should assess and report to the Board on the adequacy of the overall AMA System. Appropriate reports summarizing the results of independent verification and validation of the bank's AMA System, including associated models, should be provided to the Board and appropriate management. The board should ensure that senior management initiates timely corrective action where necessary.	Annual	[SG] OR- S 32
6.	The Board and management should ensure that the bank's operational risk management, data and assessment, and quantification processes are appropriately integrated into the bank's existing risk management and decision-making process and that there are adequate resources to support these processes throughout the bank.	On-going	[SG] OR-S 5

7.	The Board and senior management must receive reports on operational risk exposure, operational risk loss events, and other relevant operational risk information. The reports should include information regarding firm-wide and business line risk profiles, loss experience, and relevant business environment and internal control factor assessments.	Quarterly	[SG] OR-S 10
8.	Board must adopt formal disclosure policy that addresses the bank's approach for determining the disclosures it should make.	One off	[MR] Section 8(b) [NPR] Section 71
9.	The Board or its appropriately delegated agent should approve the ICAAP and its components, review them on a regular basis, and approve any revisions. The Board or its delegated agent, as well as appropriate senior management, should periodically review the resulting assessment of overall capital adequacy and determine that actual capital held is consistent with the risk appetite of the bank, taking into account all material risks.	Periodically	[SG] Pillar 2, #37 [SG] Pillar 2, #41

Key:
SG = Supervisory Guidance
MR = Market Risk NPR (9/5/06)
NPR = Credit and Operational Risk NPR (9/5/06)

Attachment B – Unit of Measure
Example of Inconsistency between the NPR and Supervisory Guidance

(Excerpt from AMA Group March 23, 2007 response to the NPR)

a. NPR and Supervisory Guidance References

The NPR explicitly introduces and defines the concept of "unit of measure." The proposed rule defines a unit of measure as *"the level (for example, organizational unit or operational loss event type) at which the bank's operational risk quantification system generates a separate distribution of potential operational losses."* (Federal Register Vol. 71, No. 185, p. 55852; Supervisory Guidance p. 9172)

The NPR goes further to say that, for a data grouping to be acceptable as a unit of measure for a specific loss distribution, a *"… bank must [also] demonstrate that it has not combined business activities or operational loss events with different risk profiles within the same loss distribution."* (Federal Register Vol. 71, No. 185, p. 55852)

The Supervisory Guidance includes Standard No. 27. This states: *"The bank must employ a unit of measure that is appropriate for the bank's range of business activities and the variety of operational loss events to which it is exposed, and that does not combine business activities or operational loss events with different risk profiles within the same loss distribution." (Supervisory Guidance p. 9179)*

In the explanation that follows, the Supervisory Guidance goes on to say: *"Banks should weigh the advantages and disadvantages of estimating a single loss distribution or very few loss distributions (top-down approach), versus a larger number of loss distributions for specific event types and/or business lines (bottom-up approach). One advantage of the top-down approach is that data sufficiency is less likely to be a limiting factor, whereas with the bottom-up approach there may be pockets of missing or limited data. However, a loss severity distribution may be more difficult to specify with the top-down approach, as it is a statistical mixture of (potentially) heterogeneous business line and event type distributions." (Supervisory Guidance p.9179)*

"Supervisors will consider the conditions necessary for the validity of top-down approaches and evaluate whether these conditions are met in their particular individual circumstances." (Supervisory Guidance p. 9179)

b. Discussion

In addition to our Introductory Comment on prescriptiveness and lack of flexibility, this NPR language and the language of Standard No. 27 itself are not consistent with the explanation that follows the Standard. The S.27 and NPR language preclude the use of top-down approaches because a loss distribution estimated on a firm-wide basis will certainly combine *" … business activities or operational loss events with different risk profiles within the same loss distribution."*

The language following S.27, however, explicitly allows for top-down capital estimation approaches. It also goes from a single criterion – homogeneous risk profiles – to two criteria – homogeneity of risk profiles and data sufficiency.

The AMAG has recently inventoried its range of practices on capital estimation, and observed that its membership is largely divided between the use of bottom up and top down estimation methodologies. In light of the Supervisory Guidance clarifying text, it is the AMAG's belief that the agencies do not intend to preclude use of top down methods.

c. Suggestions

In view of the industry's range of practices at the present time, the AMAG believes that some clarification of the language in the proposed rule and the Supervisory Guidance would be important. The members are largely aligned in their thinking about this issue, and are in complete agreement on the specifics of suggestions for improving the language.

The AMAG proposes that one possible solution would be to leave much of the language intact, with the following exception. In the definition, the words: *distribution of potential operational losses* should be replaced with *measure for potential operational losses*. Otherwise, the proposed definition of unit of measure could be left intact.

In addition, contradictory language that currently appears in the text should be stricken. That is, delete:

> *"… bank must [also] demonstrate that it has not combined business activities or operational loss events with different risk profiles within the same loss distribution."* (Federal Register Vol. 71, No. 185, p. 55852)

Also, delete:

> *"…and that does not combine business activities or operational loss events with different risk profiles within the same loss distribution." (Supervisory Guidance p. 219)*

d. Implications

Our suggestion would achieve two things: (i) remove the ambiguity caused by the inconsistencies in the texts; (ii) provide clarity that both bottom-up and top-down capital estimation methodologies are permissible. As described above, this is a major concern for those institutions that are currently developing capital estimates at a high level, and employing allocation methodologies (i.e., hence the language *measure for potential operational losses* in the definition of unit of measure) to distribute the capital to lines of business or other units in the organization. Specifically, it is the current practice of several domestic U.S. institutions to calculate capital at the corporate level and allocate among their business entities (i.e., top down).

In addition, at least one Foreign Banking Organization (FBO) intends to allocate the results of its AMA capital, calculated at the Group level, to its U.S. DI and BHC subsidiaries. It will be impossible for the U.S. DI and BHC subsidiaries of an FBO to satisfy the use test of both the Basel II AMA as defined in the NPR, and the FBO's home country AMA at the same time. The NPR defines operational risk in ways different from those of the Basel II Accord and the European CRD (Capital Requirement Directive). The reality will be that the U.S. subsidiaries will simply not be able to use both the operational risk estimates required by their home country approach and satisfy the U.S. NPR at the same time.

Attachment C - Dependence

(Excerpt from AMA Group March 23, 2007 response to the NPR)

a. NPR and Supervisory Guidance References

The NPR and Supervisory Guidance address the dependence or covariance between loss distributions. Dependence is defined in the NPR (p. 55913) and the Supervisory Guidance (p.9171) as: "…*a measure of the association among operational losses across and within business lines and operational loss event types*."

Both documents indicate that, where dependence assumptions are concerned (SG p 9179), a *"…bank using internal estimates of dependence, whether explicit or embedded, must demonstrate that its process for estimating dependency is sound, robust to a variety of scenarios, and implemented with integrity, and allows for the uncertainty surrounding the estimates."*

In support of this process requirement, the documents require additional conservatism in capital estimation. That is, a bank must demonstrate that it has explored dependence in some detail. Both the NPR and the Supervisory Guidance (in S.28) go on to argue that, in the absence of sound, robust estimates, developed with integrity and allowing for uncertainty, *"… the bank must sum operational risk exposure estimates across units of measure to calculate its operational risk exposure."*

In the explanation that follows S.28, the Supervisory Guidance goes on to say: *"While dependence modeling for operational risk is an evolving area, banks should consider the following principles and guidelines:*

- *"Assumptions regarding dependence should be supported by empirical analysis (data) where possible. The Agencies expect this analysis will become more feasible over time as data availability increases and greater consensus emerges with regard to dependence modeling.*
- *"Where empirical support is not possible, dependence assumptions should be based on the judgment of business line experts. In such cases, it would be important to express dependence concepts in intuitive terms. …"*

Later on, in the explanation, the Supervisory Guidance says that *"… top-down approaches inherently mask dependence and, under many circumstances, assume statistical independence across business lines and event types. To the extent a top-down approach is used, a bank should ensure that dependence within units of measure is suitably reflected in the operational risk exposure estimate."*

b. Discussion

Although the proposed definition of dependence is adequate, the AMAG believes that it would be improved and less confusing if it related to units of measure rather than to business lines and operational loss event types.

In terms of application, the draft Rule and the supervisory guidance insist that a bank "must demonstrate" that its process of estimating dependency meets several criteria. As worded, this phrase results in an ambiguous requirement. At one extreme, "must demonstrate" could be construed to mean "prove statistically" which is a high and impractical general standard. At the other, it could mean "must describe" which seems peculiarly lax. Based on the explanatory text in the Supervisory Guidance, the better interpretation would seem to be that, if there is no empirical evidence, business judgment is fine. There is no explanation about the kinds of information or argument that should support these business judgments.

It would be excessively conservative to require a bank that cannot demonstrate the independence of risk exposures to sum operational risk exposures. It is highly unlikely that loss distributions across all units of measure are perfectly and positively dependent.

Finally, the AMAG takes issue with the statement that "… *top-down approaches inherently mask dependence and, under many circumstances, assume statistical independence across business lines and event types."* This is not necessarily true. There is no inherent reason why a top-down approach has to mask dependence or assume statistical independence.

c. Suggestions

It would improve both texts to define dependence as "… *a measure of the association among operational losses across and within units of measure*."

In addition, the AMAG believes that the following language should be stricken from the text:

> *"… the bank must sum operational risk exposure estimates across units of measure to calculate its operational risk exposure."*

The AMAG sees this as an important issue not simply for its unreasonable prescriptiveness and excessive conservatism. In addition, there is no such requirement about summing operational risk exposure included in either the Basel II Capital Accord or the European CRD.

The requirement to demonstrate that the process of estimating dependency meets appropriate criteria should be based on empirical evidence that is currently available, whether it is statistical or anecdotal. Then the demonstration should be either based on established statistical techniques, more general mathematical approaches, or on clear logical argument regarding the presence or absence of relationships between the causes of different risks and losses, or regarding the similarity of circumstance between

the bank and a peer group for which acceptable estimates of dependency are available. If no demonstration is forthcoming, then a conservative assumption of positive dependence is warranted, but not an assumption of perfect positive dependence (i.e., summing the exposure estimates).

Last, the AMAG believes that both drafts should delete any generalization regarding top-down approaches and the masking of dependence and assumption of statistical independence. If the regulatory agencies wish to express a preference that top-down approaches should not mask dependence and not assume independence, then it would be reasonable to say so.

d. Implications

Once again, the implications of our suggestions would be to make the proposed rule and guidance more reasonable and clear. Our suggested definition would add clarity. An improved description of what it means to demonstrate a degree of dependency would reduce ambiguity. A less extreme fallback assumption than 100% correlation would be more reasonable. Last, removing unfounded assumptions about top-down approaches would make both texts more defensible.