

Quantification, Management, and Mitigation of Operational Risk: Pending Regulatory Incentive and Opportunity

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Executive Summary

U.S. Banking regulators (OCC, FDIC, OTS, and FRB), as a result of their work on the New Basel Capital Accord, recently published proposed regulations in the Federal Register (68.FR.149) which explicitly address the assessment of “operational risk” as a specific and separate criterion for inclusion in the evaluation of capital adequacy within banking institutions. The Basel Committee on Banking Supervision notes that “management of specific operational risks is not a new practice; it has always been important for banks to try to prevent fraud, maintain the integrity of internal controls, reduce errors in transaction processing, and so on. However, what is relatively new is the view of operational risk management as a comprehensive practice comparable to the management of credit and market risk in principle, if not always in form.”¹

This shift in viewpoint is comparable to the evolution of thinking in the Quality Assurance field, with its increasing emphasis on a systems perspective, i.e., thorough organizational alignment facilitating continual, integrated, and quantifiable improvement in operational processes institution-wide.

A proven, flexible (i.e., non-prescriptive, results-oriented) template exists that seems directly applicable to the operational risk assessment, management, and mitigation goals comprising these proposed regulations—specifically the Baldrige National Quality Program’s *Criteria for Performance Excellence*. While the organizational benefits of undertaking (and then acting upon) a Baldrige-based² assessment are worthy in their own right, such an effort might also garner a more favorable Capital Adequacy determination by the regulators. Banks ought give this a serious look.³

¹ *Sound Practices for the Management and Supervision of Operational Risk*
Basel Committee on Banking Supervision (February 2003), www.bis.org/publ/bcbs96.pdf

² There are nearly 40 state-level “mini-Baldrige” programs nationwide. The Nevada Quality Alliance APEX program (The Governor’s Awards for Performance Excellence), of which I am a founder, is among them. See www.NvQA.org. State-level Baldrige-based programs provide an inexpensive and slightly less demanding alternative to engaging the rigorous national Baldrige assessment process right away.

³ As of today, it appears that smaller banking institutions will not fall under the direct purview of these incipient regulations (see Section II.C of 68.FR.149, pg. 45907, “General Banks”). Notwithstanding that, it may well play to *any* institution’s regulatory advantage to formally tackle operational risk issues in a manner consistent with the Basel and Baldrige criteria—and doing so cannot but help improve operations and profitability.

Proposed Changes to Regulatory Capital Adequacy Assessment

Excerpts from 68.FR.149⁴ relevant to 12.CFR.3, .208, .225, .325, .567

[Federal Register: August 4, 2003 (Volume 68, Number 149)] [Proposed Rules]
[Comment deadline, November 3, 2003] [Page 45899-45948]
From the Federal Register Online via GPO Access [wais.access.gpo.gov][DOCID:fr04au03-14]

SUMMARY: The Office of the Comptroller of the Currency (OCC), the Board of Governors of the Federal Reserve System (Board), the Federal Deposit Insurance Corporation (FDIC), and the Office of Thrift Supervision (OTS) (collectively, the Agencies) are setting forth for industry comment their current views on a proposed framework for implementing the New Basel Capital Accord in the United States. In particular, this advance notice of proposed rulemaking (ANPR) describes significant elements of the Advanced Internal Ratings-Based approach for credit risk and the Advanced Measurement Approaches (AMA) for operational risk (together, the advanced approaches). The ANPR specifies criteria that would be used to determine banking organizations that would be required to use the advanced approaches, subject to meeting certain qualifying criteria, supervisory standards, and disclosure requirements. Other banking organizations that meet the criteria, standards, and requirements also would be eligible to use the advanced approaches. Under the advanced approaches, banking organizations would use internal estimates of certain risk components as key inputs in the determination of their regulatory capital requirements.

Financial Institutions “Operational Risk” Definition

...The Agencies are proposing to define operational risk as *the risk of losses resulting from inadequate or failed internal processes, people, and systems, or external events*. Under the AMA, each banking organization would be able to use its own methodology for assessing exposure to operational risk⁵, provided the methodology is comprehensive and results in a capital charge that is reflective of the operational risk experience of the organization... [pg. 45904]

V. AMA Framework for Operational Risk

...The Agencies’ general risk-based capital rules do not currently include an explicit capital charge for operational risk, which is defined as the risk of loss resulting from inadequate or failed processes, people, and systems or from external events. When developing the general risk-based capital rules, the Agencies recognized that institutions were exposed to non-credit related risks, including operational risk. Consequently, the Agencies built a “buffer” into the general risk-based capital rules to implicitly cover other risks such as operational risk. With the introduction of the A-IRB framework for credit risk in this ANPR, which results in a more risk-sensitive treatment of credit risk, there is no longer an implicit capital buffer for other risks.

The Agencies recognize that operational risk is a key risk in financial institutions, and evidence indicates that a number of factors are driving increases in operational risk... [pg. 45940]

The Agencies are proposing the AMA to address operational risk for regulatory capital purposes. The Agencies are interested, however, in possible alternatives. Are there

⁴ <http://frwebgate5.access.gpo.gov/cgi-bin/waisgate.cgi?WAISdocID=887760470646+1+1+0&WAISaction=retrieve>

⁵ Emphasis mine. Review the Baldrige criteria. Might they serve substantially toward this end?

alternative concepts or approaches that might be equally or more effective in addressing operational risk? If so, please provide some discussion on possible alternatives. [pg. 45941]

A. AMA Capital Calculation

The AMA capital requirement would be based on the measure of operational risk exposure generated by a banking organization's internal operational risk measurement system. In calculating the operational risk exposure, an AMA-qualified institution would be expected to estimate the aggregate operational risk loss that it faces over a one-year period at a soundness standard consistent with a 99.9 percent confidence level. The institution's AMA capital requirement for operational risk would be the sum of EL [*expected loss*] and UL [*unexpected loss*], unless the institution can demonstrate that an EL offset would meet the supervisory standards for operational risk. The institution would have to use a combination of internal loss event data, relevant external loss event data, business environment and internal control factors, and scenario analysis in calculating its operational risk exposure. [pg. 45941]

...An institution's operational risk framework would have to include an independent operational risk management function, line of business oversight, and independent testing and verification...

An institution would have to establish an analytical framework that incorporates internal operational loss event data, relevant external loss event data, assessments of the business environment and internal control factors, and scenario analysis. The institution would have to have standards in place to capture all of these elements. The combination of these elements would determine the institution's quantification of operational risk and related regulatory capital requirement.

The supervisory standards for the AMA have both quantitative and qualitative elements. Effective operational risk quantification is critical to the objective of a risk-sensitive capital requirement. Consequently, a number of the supervisory standards are aimed at ensuring the integrity of the process by which an institution arrives at its estimated operational risk exposure.

It is not sufficient, however, to focus solely on operational risk measurement. If the Agencies are to rely on institutions to determine their risk-based capital requirements for operational risk, there would have to be assurances that institutions have in place sound operational risk management infrastructures...

...Ultimately, the Agencies believe that better operational risk management will enhance operational risk measurement, and vice versa. [pg. 45941]

Corporate Governance

An institution's operational risk framework would have to include an independent firm-wide operational risk management function, line of business management oversight, and independent testing and verification functions. While no specific management structure would be mandated, all three components would have to be evident...

...Lines of business would be responsible for the day-to-day management of operational risk within each business unit. Line of business management would have to ensure that internal controls and practices within their lines of business are consistent with firm-wide policies and procedures that support the management and measurement of the institution's operational risk...

...An institution would have to have policies and procedures that clearly describe the major elements of its operational risk framework, including identifying, measuring, monitoring, and controlling operational risk...

B. Elements of an AMA Framework

An institution would have to demonstrate that it has adequate internal loss event data, relevant external loss event data, assessments of business environments and internal control factors, and scenario analysis to support its operational risk management and quantification framework...

...As highlighted earlier in this ANPR, credit losses caused or exacerbated by operational risk events would be treated as credit losses for regulatory capital purposes; these would include fraud-related credit losses... [pg. 45942]

...An institution using an AMA for regulatory capital purposes would have to use advanced data management practices to produce credible and reliable operational risk estimates. These practices are comparable to the data maintenance requirements set forth under the A-IRB approach for credit risk. [pg. 45943]

Discussion

As noted in the Executive Summary, a substantial proportion of organizational processes comprising “operational risk” areas as alluded to by the Basel Committee and The Agencies would principally fall under the purview of the QA function (quality assurance) in business generally.⁶ Suboptimal processes result in suboptimal quality of products and services alike, and consequently represent risks to profitability (as well as to reputation). The Baldrige assessment process and awards program, begun in 1987, is sponsored by NIST, the National Institute of Standards and Technology:



www.quality.nist.gov

The American Society for Quality (ASQ), an independent not-for-profit technical society is the administrator of the Baldrige process:



www.asq.org

The Nevada Quality Alliance (NvQA, www.NvQA.org) was founded several years ago by local members of ASQ and other interested participants, and now administers the Nevada Governor’s Awards for Performance Excellence (APEX), which applies the Baldrige criteria to organizations that apply for assessment and recognition:



⁶ We speak mainly—albeit not exclusively—to uninsurable internal operational risks here. The “external events” alluded to in the Agencies’ definition on page 1 would certainly include (beyond supplier/ vendor operational shortcomings) insurable risks no amount of internal QA could obviate (natural or external man-made disasters, acts of terrorism, etc.).



www.NvQA.org

What are the Baldrige (and Nevada's APEX) criteria?⁷

The Baldrige performance excellence criteria are a framework that any organization can use to improve overall performance. Seven categories make up the award criteria:

1. **Leadership**--Examines how senior executives guide the organization and how the organization addresses its responsibilities to the public and practices good citizenship.
2. **Strategic planning**--Examines how the organization sets strategic directions and how it determines key action plans.
3. **Customer and market focus**--Examines how the organization determines requirements and expectations of customers and markets.
4. **Information and analysis**--Examines the management, effective use, and analysis of data and information to support key organization processes and the organization's performance management system.
5. **Human resource focus**--Examines how the organization enables its workforce to develop its full potential and how the workforce is aligned with the organization's objectives.
6. **Process management**--Examines aspects of how key production/delivery and support processes are designed, managed, and improved.
7. **Business results**--Examines the organization's performance and improvement in its key business areas: customer satisfaction, financial and marketplace performance, human resources, supplier and partner performance, and operational performance. The category also examines how the organization performs relative to competitors.

For many organizations, using the criteria results in better employee relations, higher productivity, greater customer satisfaction, increased market share, and improved profitability. According to a report by the Conference Board, a business membership organization, "A majority of large U.S. firms have used the criteria of the Malcolm Baldrige National Quality Award for self-improvement, and the evidence suggests a long-term link between use of the Baldrige criteria and improved business performance."

⁷ The text on pages 6 – 8 is that of a summary section of the 2003 Baldrige Criteria document, available online at www.quality.nist.gov/Business_Criteria.htm

Key Baldrige Characteristics

1. The Criteria focus on business results.

The Criteria focus on the key areas of organizational performance given below.

Organizational performance areas:

- (1) customer-focused results
- (2) product and service results
- (3) financial and market results
- (4) human resource results
- (5) organizational effectiveness results, including key internal operational performance measures
- (6) governance and social responsibility results

The use of this composite of indicators is intended to ensure that strategies are balanced—that they do not inappropriately trade off among important stakeholders, objectives, or short-and longer-term goals.

2. The Criteria are nonprescriptive and adaptable.

The Criteria are made up of results-oriented requirements. However, the Criteria *do not* prescribe that your organization should or should not have departments for quality, planning, or other functions; how your organization should be structured; or that different units in your organization should be managed in the same way.

These factors differ among organizations, and they are likely to change as needs and strategies evolve. The Criteria are nonprescriptive for the following reasons:

- (1) The focus is on results, not on procedures, tools, or organizational structure. Organizations are encouraged to develop and demonstrate creative, adaptive, and flexible approaches for meeting basic requirements. Nonprescriptive requirements are intended to foster incremental and major (“breakthrough”) improvements, as well as basic change.
- (2) The selection of tools, techniques, systems, and organizational structure usually depends on factors such as business type and size, organizational relationships, your organization’s stage of development, and employee capabilities and responsibilities.
- (3) A focus on common requirements, rather than on common procedures, fosters better understanding, communication, sharing, and alignment, while supporting innovation and diversity in approaches.

3. The Criteria support a systems perspective to maintaining organization-wide goal alignment.

The systems perspective to goal alignment is embedded in the integrated structure of the Core Values and Concepts, the Organizational Profile, the Criteria, and the results-oriented, cause-effect linkages among the Criteria Items. Alignment in the Criteria is built around connecting and reinforcing measures derived from your organization's processes and strategy. These measures tie directly to customer value and to overall performance. The use of measures thus channels different activities in consistent directions with less need for detailed procedures, centralized decisionmaking, or process management. Measures thereby serve both as a communications tool and a basis for deploying consistent overall performance requirements. Such alignment ensures consistency of purpose while also supporting agility, innovation, and decentralized decisionmaking.

A systems perspective to goal alignment, particularly when strategy and goals change over time, requires dynamic linkages among Criteria Items. In the Criteria, action-oriented cycles of learning take place via feedback between processes and results.

The learning cycles have four, clearly defined stages:

- (1) planning, including design of processes, selection of measures, and deployment of requirements
- (2) execution of plans
- (3) assessment of progress and capturing new knowledge, taking into account internal and external results
- (4) revision of plans based upon assessment findings, learning, new inputs, and new requirements

4. The Criteria support goal-based diagnosis.

The Criteria and the Scoring Guidelines make up a two-part diagnostic (assessment) system. The Criteria are a set of 19 performance-oriented requirements. The Scoring Guidelines spell out the assessment dimensions—Approach, Deployment, and Results—and the key factors used to assess each dimension. An assessment thus provides a profile of strengths and opportunities for improvement relative to the 19 basic requirements. In this way, assessment leads to actions that contribute to performance improvement in all areas. This diagnostic assessment is a useful management tool that goes beyond most performance reviews and is applicable to a wide range of strategies and management systems.

Los Alamos (NM) National Bank, 2000 Baldrige Award Winner

Insight into the recent application of Baldrige criteria to a financial institution is available on the Los Alamos National Bank (LANB) website, where they provide a downloadable copy of their successful Baldrige application. LANB President Steve Wells will be the Keynote Speaker at this year's APEX Awards banquet on November 7th at UNLV. (See www.NvQA.org for details.)



www.lanb.com/baldrige/index.asp