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INTERNATIONAL ASSOCIATION OF FINANCIAL ENGINEERS

Operational Risk at a Crossroads:

A Report of the Operational Risk Committee:

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Summary

The Operational Risk Committee of the International Association of Financial Engineers ("IAFE") met in April 2002 to explore some less commonly discussed facets of operational risk. The goal of this session was to discuss in a public forum the topics that are rarely included in the typical conference agenda. A broad conclusion of the discussion was that operational risk management is at a critical crossroads. The discipline is not entirely new, and there are many lessons we can learn from credit and market risk. It is now time to move ahead and channel the industry's energy into focussed and sustained action. Some other key findings of the discussion are as follows:

1. Firms should focus on the upside of operational risk management; here lies its greatest value to firms.

2. Firms need to use a balanced approach between qualitative and quantitative methods.

3. Organizations should prioritize key risks.

4. Organizations need to understand their risk appetites.

5. Efforts to manage operational risk that are formulaic are bound to fail. Managing operational risk is a journey and a process rather than a one-time special project.

Introduction and Overview

Operational risk management is at a crossroads. Against the backdrop of the pending New Basel Accord, operational risk is receiving heightened attention among industry participants. Much discussion and analysis has taken place over the best ways for firms to move forward on managing operational risk, and much progress has been made regarding specific details, such as definitions, risk indicators and capital models. Clearly there has been extensive dialogue, including recommendations from industry participants and regulators, but operational risk as a discipline is in flux. There is confusion stemming from the recent revisions to the original accord and the delays in its proposed effective date. Some firms are moving ahead with robust programs, while others are doing just the minimum or waiting for the New Basel Accord to become final.

Firms seeking to put in place operational risk programs are facing many issues, such as how to get started, how to secure funding and staffing and how to adapt broad principles to their own organizations. Many operational risk programs are under-funded when compared with market or credit risk initiatives, and organizations are struggling with obtaining the necessary dollars for staff and expenses. Some firms are addressing specific problems or initiatives – such as the use of risk indicators, event tracking and control self-assessment – but many have yet to address broad organizational issues relating to risk strategy and culture.

The IAFE Operational Risk Committee sponsored a panel discussion in New York on April 23, 2002 for IAFE members and guests from the risk management community. Several of these less commonly discussed topics were explored by panelists Douglas Hoffman, Joseph Sabatini, Jonathan Davies and David Syer. The key points arising from these discussions are reported here.

Where are we now?

The time is now right for operational risk management to grow into its maturity. In the last ten years, firms have made significant investments in market and credit risk programs. Operational risk programs, however, have not received a comparable level of investment. In fact, across the industry there has been an under-investment in operational risk programs. Competitor and shareholder demands require that we need to do more. This is particularly the case in light of the growing interconnectivity of risk events and major market crises. Not that our financial institutions are out of control or poorly managed; rather, there are many lessons to be learned and applied. We can do better.

The status of operational risk lends itself to some useful metaphors. It helps to consider the discipline in terms of taking a journey rather than writing a formula. We are still learning a lot, and our successors are likely to look back at us with some humor about the simplicity of our current approaches. During this journey, we are growing increasingly sophisticated with the core processes of risk definition, identification, measurement,

management and optimization. This process will help make the operational risk discipline more active and relevant.

However, it is a fallacy to consider operational risk a "new discipline." We have been discussing basic issues relating to operational risk for over a decade. There are lessons we can learn from credit risk, where many similar issues have emerged, such as achieving a balanced quantitative and qualitative approach. Other lessons and approaches can be adopted from the management quality literature such as six-sigma. Many have used the "new discipline" excuse as a reason for moving slowly. It is time to finally get started on the hard work.

To become truly successful at managing operational risk, we need to approach this challenge from a firm-wide perspective. We will need to address the most critical issues facing organizations, such as culture, strategy and the relationship between the employee and the employer. We have approached operational risk in the past with small steps and an ad-hoc mentality. Under these conditions, it is often difficult to see the overall value and achieve the greatest gains.

We need to spend less time debating the merits of operational risk management. Moreover we need to devote less time to anticipating regulatory developments or fighting to refine regulatory proposals. Instead, we need to invest in actually addressing the issue in meaningful ways within our institutions. Operational risk – unlike market and credit risk – touches all business units within an organization, and not just those engaged in a finite discipline. This is an opportunity for achieving firm-wide acceptance that has not been fully leveraged in the past. We need to think "larger."

Key Findings

1. Focus on the Upside of Operational Risk.

It is natural for any organization to question the value of a newly implemented process. After all, operational risks are not new; they have always existed within our organizations. So why do we need to invest in new staff and related processes? One justification is that historically there has never been effective transparency over operational risks. While such risks have been inherent across all business units, losses were never tracked, mistakes were not easily identified as such, and root causes were incompletely analyzed and addressed.

The introduction of this new process highlights the issue of transparency. A disciplined approach over loss incident collection, for instance, assists with establishing the value of operational risk to an organization's senior and line managers. Another way of describing this new approach is in terms of establishing a risk culture. Where we used to hide errors, we now recognize that mistakes will happen as part of the normal process of running large and complex businesses. Within this context, mistakes become opportunities for learning and they should be embraced for what they are. We can use them as building blocks in the creation of benchmarks or performance baselines. We have gained the tools necessary to reduce the frequency and severity of loss events. We have made the entire process transparent and knowable.

Other justifications for an operational risk management program include:

- a savings in operational risk capital (through qualifying for advanced models under the New Basel Accord);
- improved quality of service/operations;
- reduced cost of control and audit activities;
- savings in insurance/risk transfer costs; and
- competitive advantage gained from an improved risk awareness culture.

There is also a strategic benefit to operational risk management. Excellence on this initiative creates opportunities for new revenue generation. This can be in the form of lower (but profitable) pricing schemes or business decisions based on operational risk analysis, such as "in-sourcing" initiatives.

Operational risk management offers significant upside for an institution. This upside opportunity is what risk managers need to demonstrate to their management in order to secure proper funding. If operational risk is merely considered from a mitigation point of view, it will never receive the resources it deserves within our financial institutions. It will be viewed as a regulatory compliance or back office function. What is most compelling about operational risk management is that it offers value beyond regulatory compliance issues and

contributes to a firm's shareholder value. Regulatory issues are important – they are what initially galvanized the industry – but they present a limited view of the important role of operational risk.

2. Use a Balanced Quantitative and Qualitative Approach.

Most institutions that have undertaken operational risk programs have started with either one of two approaches. The first is a qualitative approach, often centered on risk-assessment. The second is a quantitative approach, usually focused on event data, risk indicators and capital quantification. Regardless of the starting point, an effective program needs to incorporate both types of analysis. The quantitative approaches are objective, but can arguably best represent the past and present. The qualitative approaches can capture risks not readily quantifiable, and also look forward to potential threats that might not be reflected in any measures. The ideal program uses both approaches to balance each other and ultimately to create a rich repository of operational risk knowledge.

This notion of balance is also reflected in the proposed New Basel Accord. Capital methodologies include both a scorecard approach (more qualitative) and loss distribution approaches (more quantitative). In actuality, many leading institutions are developing methodologies based on a combination of the two. Loss distribution approaches, based on a history of internal and external losses, are used to set initial capital levels. Scorecards assist with the development of a more forward-looking view and provide a mechanism for flexibility in adjusting capital levels within the organization.

3. Foster a Risk-Awareness Culture.

Operational risk should become an explicit part of the overall management processes. In order to be effectively managed, it needs to be incorporated within the strategic planning cycle of an organization. Instead of attempting to manage and measure a long list of hundreds of risks, we should have the courage to target the top 10 or 15 items that are management's greatest source of concern. We should be asking what are the "most important" risks facing an organization. This will allow us to prioritize and properly manage an organization's overall risk profile, and to determine appropriate or acceptable exposure thresholds.

A critical element of this framework is the need to create economic incentives. These usually take the form of a capital charge, and business areas are required to generate an appropriate return on risk-adjusted capital, or shareholder value-added. These performance measures can tie into executive compensation programs and give the discipline of operational risk the proper "bite" to be effective. Consequently, an incentive program encourages the line manager to understand his unit's risk profile, and actively manage the process and results in order to influence the allocation of operational risk capital. Capital allocation mandates need to respond promptly to changes that impact an organization's

operational risk profile and provide the means for managers to have some element of control over their own destiny.

4. Understand the Organization's Risk Appetite.

Risk appetite is the amount of risk that is acceptable within an individual organization. In market and credit risk methodologies, the primary means to communicate risk appetite is the limit structure. In operational risk, risk appetite is typically understood through a variety of methods, including the tracking of risk indicators, levels of capital, insurance deductibles and qualitative approaches.

Traditionally, organizations focus on error avoidance and low severity/high frequency losses. A more finely tuned risk culture might decide to allow for some exposure to commonly occurring and low severity risks, and concentrate resources on more critical and potentially damaging ones. Risk control has an associated cost and requires an intelligent and active cost/benefit analysis. The accumulation of a comprehensive history of loss events and errors can establish the basis from which to estimate costs and benefits. It is not optimal, especially during these economically challenging times, to over-manage risks that may not pose significant hazards to an organization. And it is never appropriate to overlook those risk exposures that are critical to an organization's survival.

5. Operational Risk is a Journey rather than a Formula.

Operational risk management should be viewed as a journey that an organization undertakes. There is no formulaic approach that will work for all organizations; nor is there a static methodology that will work over an extended period of time. The analogy of a journey presumes that lessons are learned along the way, and there is an ongoing need to revise and improvise. There are no easy direct routes in this journey, but an organization will eventually arrive at its destination if it is willing to be flexible and revise its course as necessary to be open to an ever-changing process.

There are many lessons to be learned from other disciplines including credit and market risk, as well as the quality movement. Operational risk management can learn from other management techniques, including six sigma, which can help focus on quality and examine the breakpoints where processes often fail. Operational risk can also reach across an organization – unlike credit and market risk – and establish a bridge with other departments, such as legal, compliance and audit. Such bridge-building activities will enrich efforts to further development as a quality and integrity-driven enterprise.

Conclusion

In summarizing our findings, and reflecting on the state of operational risk management, the events of September 11th are at the center of our thoughts. This horrible and previously unimaginable event, in addition to affecting us at a deeply personal level, has also required organizations to reexamine key issues. The lessons that were learned on September 11th were profound, both personal and professional. The need to have disaster-recovery plans in place and to have an awareness of how an organization will function during times of turmoil has been well demonstrated.

It has also become apparent that the industry learned lessons from past events, such as the bombing of the World Trade Center in 1993 and Y2k planning, that allowed for the development of disaster-response plans that literally saved lives and allowed businesses to resume operations within a matter of days. This is the essence of operational risk management: applying the lessons of the past in order to avoid such mistakes in the future.

During the last eighteen months, we have participated in an intense dialogue regarding operational risk management. Although this dialogue has greatly enhanced our understanding of operational risk in the past, and we have made meaningful progress as a result, it is time to finally surrender the excuse that the discipline of operational risk is too unknowable to manage or even understand. It is time to finally channel our energy into focussed and sustained action. It is time to get to work!

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About the Operational Risk Committee

Of all the different forms of risk which can affect firms, Operational Risk can be among the most devastating and among the most difficult to anticipate. Operational Risk continues to receive heightened attention among regulators and market participants, further prompting dialogue and debate on the best ways to identify, measure and manage this important risk.

In response to these developments, the Operational Risk Committee was formed in 2000. Its mission is to promote dialogue among members and the broader risk management community to further understanding, share best practices and promote industry standards regarding Operational Risk.

The committee's mandate is to explore Operational Risk in its broadest sense. Examples of potential topics which may be considered by the committee for initiatives include definitional issues, best practices, quantification, indicators, data issues, governance, culture, technology approaches, effectiveness of existing controls and the interrelationship of Operational Risk to other forms of risk.

The activities of the committee are multi-faceted and are shaped by the interests and energies of its members as guided by its Steering Committee. Specific initiatives include but are not limited to panel discussions, seminars, workshops, white papers, surveys, e-learning initiatives and research projects.

Although the proper definition of Operational Risk has often been the subject of past heated debate, there is generally agreement among risk professionals that the definition should, at a minimum, include breakdowns or failures relating to people, internal processes, technology or the consequences of external events. Operational Risk is a broader concept than "operations" or back office risk. It encompasses risk inherent in business activities across the entire firm and, consequently, its losses have the potential to be of much greater magnitude.

The committee includes individuals with a range of backgrounds, including dealers, end-users, industry advisors, operational risk specialists, technologists, regulators, scholars and others. Individuals serve on this committee in their individual capacities as opposed to representatives of their respective employers or organizational affiliations. Participation and sponsorship of organizations in committee events and activities is open for consideration.

About the IAFE

The International Association of Financial Engineers (IAFE) is a professional society dedicated to defining and fostering the profession of financial engineering. Its primary mission is to help establish and promote industry standards and practices relating to financial engineering theory and practice.

Founded in 1992, the IAFE has grown to include nearly 2,000 members worldwide, representing practitioners, academicians, and students from many financial disciplines as well as professionals from the accounting, legal, regulatory, and technology communities.

Through programs, publications, and original research, the IAFE provides a platform from which its members can discuss and debate the pivotal issues shaping the development of the financial engineering field. In an environment where capital market developments are constantly driven by technological change and shifting market needs, the IAFE strives to serve its membership as the preeminent professional organization for the advancement of financial engineering.