



SOCIETY OF ACTUARIES

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ERMII: An International Initiative Involving Leading Universities and Professional Organizations

by Shaun Wang

In the current, all-out race for “ERM leadership,” a consortium of leading universities and professional organizations worldwide has taken action to jointly sponsor the ERM Institute International, Ltd. (ERMII)—a nonprofit educational and research organization with a focus on education, research and training in the ERM conceptual framework, quantitative methods and tools, and best practices. Established to meet the needs and challenges of the future risk professionals and enterprise risk managers, ERMII has set the following objectives and action plans.

Objective 1: To develop and promulgate international standards for quantitative risk education intended to be the core foundation for risk managers in all major economic sectors including banking, insurance, investment, energy and other utilities, and nonfinancial industries (manufacturing, retail, transportation, health services, government, etc.).

Sound risk analysis and valuation in today's complex financial, accounting and regulatory environment will require that the next generation of risk managers better understand the intricate interplay of all risk exposures and their management in an integrated framework. Graduates entering a risk management career require sound training in not only quantitative risk modeling for financial risks, but also risk measurement that reflects the organizational and operational aspects of risk, and more importantly, how to integrate them within a holistic ERM framework by encompassing differing perspectives of various stakeholders. Leading universities and professional organizations worldwide have recognized the need for a broad-based risk education that integrates all risk management-related fields, many of which are currently narrowly defined: for example, equity risk, credit risk, or actuarial risk modeling and management. To achieve this goal, ERMII will:

- Develop and publicize standards for excellence in broad-based quantitative risk education by the universities and colleges.
- Accredite educational institutions that satisfy the curriculum, research and teaching standards.
- Provide students graduating from an ERMII accredited university program the opportunity to complete a capstone risk management course where, upon successful completion, they will satisfy the requirements for the certificate *Chartered Risk Analyst*.

Objective 2: To promote multidisciplinary, international research in the emerging discipline of enterprise-wide risk management by developing innovative concepts, effective quantitative tools and strategies.

The growing practice of enterprise risk management has generated a large variety of issues that can only be addressed through conceptual and theoretical innovations via multidisciplinary fundamental research. ERMII aspires not only to expand the types of risk that can be quantified or the precision with which they are managed, but also to encourage research that explores the concept of risk in relation to valuation dynamics, information, management, behavioral, incentive and strategic issues. The ERMII, through its international consortium of universities and professional organizations, will encourage and advance integrated risk management knowledge for the benefit of individuals, business and societies. To achieve this goal ERMII will:

- Initiate and sponsor research projects to be conducted by member universities in close collaboration with industry professionals and government officials.
- Sponsor and organize workshops, conferences and symposia that will highlight important innovations in enterprise-wide risk management and increase dialogue between academics and professionals.

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- Building on the latest regulatory and professional accomplishments, conduct research to develop expert guidance on risk measurement methods and tools for specific industry sectors.

Objective 3: To help existing and future institutions and organizations to improve professional standards of education, professional conduct and competence in the modeling and management of risk on an enterprise-wide basis.

There currently exists a number of organizations that represent various specialties within the risk management profession. The risk education covered by the educational standards of these profes-

sional bodies is, due to historical silo approaches, narrowly focused. They also do not yet cover the quantification, modeling and management of a broad set of risks in an integrated way. Further, the degree of technical sophistication required for certification differs greatly across many of these organizations. ERMII, through its Chartered Risk Analyst certification, seeks to ensure a consistently high level of professional competence in the quantification and modeling of a broad set of risks for *all risk professionals*. To achieve this goal ERMII will :

- Work jointly with sponsoring organizations to establish mutual recognition and complementary training.
- Work with the specialized-risk professional organizations to ensure university-based CRA certification will satisfy the foundational components of their professional requirements .
- Review the current and previous certification requirements of the specialized-risk professional organizations to determine

Table 1: ERMII Charter Member Universities and Professional Organizations

Institution	Department	Country	Contact Person
Carnegie-Mellon University	Quantitative Finance	United States	Steven E. Shreve
Casualty Actuarial Society	Professional Organization	United States	John Kollar
Centre d'Etudes Actuarielles (via the University Paris Dauphine)	Actuarial/Finance/Statistics	France	Jean Berthon
Georgia State University	Risk Management and Insurance	United States	Richard Phillips
Heriot-Watt University	Actuarial & Statistics	United Kingdom	Andrew Cairns
Institute of Actuaries of Australia	Professional Organization	Australia	Tony Coleman
University of Illinois at Urbana-Champaign	Finance	United States	Steve D'Arcy
University of New South Wales	Actuarial & Mathematical Finance	Australia	Mike Sherris
University of Waterloo	Actuarial & Quantitative Finance	Canada	Ken Seng Tan
Wuhan University	Finance	China	Yong-Gang Ye

the extent to which the professional designations meet the educational requirements of CRA certification to achieve maximum educational leverage .

The initial Charter Member Universities and professional organizations of ERMII (with the representative persons) are shown in Table 1 on page 34.

ERMII is continuing to discuss founding memberships with several other interested universities and professional associations worldwide.

By its defining nature, ERM needs to encompass multiple disciplines and perspectives and requires collaboration and coordination at the international level. ERMII already has this essential element for success. ERMII has assembled an impressive list of founding member universities and professional organizations, and is in the process of growing into a larger international network of high-quality universities and professional organizations. The core educational and research activities set out by ERMII are aligned with the top priorities of these member universities and professional organizations. For them, ERMII is not an extra outside initiative, but an essential element that helps them achieve their own organizational missions through international and academic-industry collaboration.

In a previous Risk Management Section Newsletter article, our highly respected leader, Jim MacGinnitie (past president of SOA, CAS and IAA), has already described the landscape of the risk management field and the rationale for supporting ERMII. In addition to Jim MacGinnitie, there are over 20 industry and academic leaders who, convinced of the value of ERMII, dedicated their time and efforts in its formation. As of today, ERMII has received widespread support by many business leaders and employers. There is tremendous momentum for ERMII at the international level.

Many of us are aware of the challenges and opportunities faced by the actuarial profession, especially in light of the rapid changes in the broader risk management field. The actuarial profession has yet to respond to the Morris Review: “The first concern is that the profession has been too insular, with insufficient contact with other professions and too narrow a professional training, and has been slow to adopt new

approaches and techniques. This has resulted in useful inputs from the disciplines of economics, statistics and demography, to name a few, having less impact than they should.”

I believe that ERMII presents the actuarial profession a unique opportunity to join forces with a broader international academic community that by its nature is broad-based and dedicated to innovations in education and research. Some leading actuarial organizations have taken actions to join ERMII, while others are still in the process of evaluating .

In today’s changing landscape of risk management, a group of leaders have decided to focus all their energy to develop the emerging discipline of ERM. ERMII currently has many important activities underway, including a working group in charge of syllabus development, and a working group in charge of research. You are cordially invited to join us and help continue the excellent progress. ♦