

# 11th East Asian Actuarial Conference

## Go Global

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### Session 1

## IAA WIDER FIELDS

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# Agenda

- **What is Global?**
- **The IAA, serving a global profession**
- **Achieving a more global future**
- **New and wider visions**
- **Leveraging research and the academia**
- **A few examples**
- **More and better career opportunities**



# Global = multidimensional

- **Global does not refer to the geographic dimension only but implies all dimensions of human activities**
- **Universality refers to different**
  - **cultures and educational patterns**
  - **legal and political systems**
  - **socio-economic environment**
  - **development pattern/wealth**
- **Better integration with other disciplines, the academic community, Think tanks and other research institutions**



# The accelerating pace of globalization

- Improvements in technology
- Revolution in communications
- Globalization of financial markets
- Convergence of financial services
- More international standards
- Explosion of e-Commerce

concur to force national boundaries to evaporate even faster than trade liberalization agreements are negotiated



# A Truly Global Profession

- **The actuarial profession, with the IAA regrouping the national associations in all continents, is the most truly globally organized profession.**
- **IAA is recognized as a non-profit, non-political and non-governmental organization**
  - **on the Roster of the Economic and Social Council of the United Nations Organisation**
  - **on the Special List of the International Labour Office**
- **Institutional members comprise:**
  - **International Social Security Association**
  - **International Accounting Standards Committee**
  - **International Association of Insurance Supervisors**



# Current Membership Status

- **IAA currently has 47 Full members plus 26 Observer members comprising about 35,000 fully qualified actuaries in more than 50 countries.**
- **7 new full members and 10 new Observers admitted in 1999, 2000 and 2001**
- **Fully Qualified Actuaries of member associations automatically members of IAA**
- **Individuals can exceptionally become directly members of IAA when they cannot do so through a national association**



# Associations Organized Before 1900

- **Institute of Actuaries, London** 1848
- **Faculty of Actuaries in Scotland** 1856
- **Association of Mathematical Advisers  
in Dutch Life Insurance Companies** 1888
- **Actuarial Society of America** 1889
- **French Institute of Actuaries** 1890
- **Royal Association of Belgian Actuaries** 1895
- **International Actuarial Association** 1895
- **Italian Association for Actuarial Science** 1897
- **Actuarial Society of Australia** 1897
- 7 ➤ **Institute of Actuaries of Japan** 1899



# International Actuarial Association

- **1895: “Comité Permanent des Congrès d’actuaire”** founded in Brussels as an association of individual actuaries
- **1968: Name changed to IAA**
- **1957: Actuarial Studies in Non-Life: ASTIN Section**
- **1988: Actuarial Approach to Financial Risks: AFIR Section**
- **1991: International Promotion and Education Fund: IPEF**
- **1995: International Forum of Actuarial Associations: IFAA**
- **1998: IAA restructured as association of associations**
- **1999: International Association of Consulting Actuaries, created in 1968, becomes IACA Section**



# The challenge of the future

- Meeting a growing demand accelerated by the growth of national economies and the global access to services through technological progress
- Helping actuaries to compete in a world demanding higher quality and strong professional standards
- Developing tools and methodologies to keep pace with a changing socio-economic environment
- Widening the recognition of the profession in all countries around the world by responding also to the needs of smaller or developing countries from a cultural and developmental point of view



# Contribution of Actuaries

- Actuaries offer a unique combination of mathematical, statistical, demographic, economic, financial, analytical and modeling skills
- Their contribution to decision making lies in their capacity to integrate the input of other professionals into a complex model, given their specific expertise and experience



# Actuaries as Risk Managers

- Actuaries traditionally seen as professional managers of the financial consequences of uncertainty
- Profession responded to the changing environment to become the leading profession in the broader area of the assessment and management of financial risks
- Actuaries are developing better measures and predictors of risks to « *make financial sense of the future* »



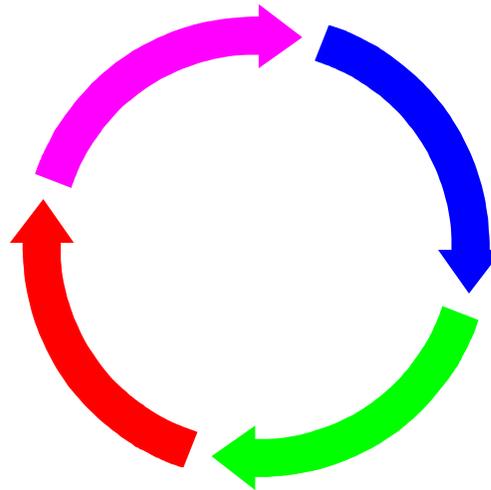
# The Actuarial Control Cycle

**Actuarial  
Risk analysis**

**Select/revise  
methodology**

**Review  
parameters**

**Monitor  
Performance  
Analyze  
experience**



**Quantitative approach  
exportable to wider fields**



# Criteria for a profession

- **Specific cognitive body of knowledge**
- **Higher education of members**
- **Examinations for competency**
- **Enforceable professional standards**



# Key Requirements to Increase Role and Recognition

- **Good governance: self-governance**
- **Education and entrance requirements**
  - **Syllabus, Examination, Certification**
- **Professional conduct of members**
- **Research and Standards process**
- **Continuing professional development**
- **Ethics and Discipline process**
- **Communications**



# Achieving a more global future

- **The IAA and the various local associations are making progress in:**
  - **defining a wider vision for the role of the actuary of the future**
  - **reforming our education and examination system to serve broader needs in evolving markets**
  - **strengthening the organization and the governance of the profession in a growing number of countries thus facilitating mutual recognition**
  - **Enhancing the body of knowledge of actuarial science and its applications through research both within the profession and in cooperation with the academia**



# IFAA Vision statement

*« To encourage the development of a global profession, acknowledged as technically competent and professionally reliable, which will ensure that the public interest is served. »*



# A Vision for the UK Actuarial Profession in 2020

- Vision and Values Paper issued by the Faculty of Actuaries and the Institute of Actuaries at the turn of the Millennium
- Motto: *“Making financial sense of the future”*
- Scope: *“a profession that can provide solutions to any problem involving financial risk and contingent events, especially where quantitative techniques can be applied.”*  
.....
- Professional body:
  - *“...a reputation for concern about the public interest...*
  - *...influential both nationally and internationally, and at least as well regarded as any other professional body;*
  - *...a truly global profession*



# The SOA Vision

**Actuaries are recognized as the leading professionals in the modeling and management of financial risks and contingent events**



# A broader scope?

- **Both the UK and the SOA visions imply a profession that expand beyond the financial services sector**
- **My preferred definition:**  
*Professional manager of the financial consequences of uncertainties*
- **The scope of the profession should encompass all problems for which actuaries are better qualified than other professionals**



# What is a wider field?

- **New areas in some countries are traditional fields in others**
- **Expertize, tools and methodologies developed in some countries can thus be drawn upon by actuaries entering new fields in other countries**
- **Existing actuarial literatures and combined research initiatives within the profession and the academi cover a wider field that the profession does in any country**



# The “Big Tent” issue

- **The “Small tent” is the status quo where the profession stays within traditional boundaries with concentration in insurance companies and DB Pension Plans**
- **Our education and examination system imposes a longer and more complex path to qualification than competing disciplines**
- **We risk losing some of the best and brightest potential actuaries to other jobs, including financial engineers, risk analysts for financial institutions and computer related professions.**
- **The “Big Tent” is the vision of the actuary as a broad based solver of problems for the financial services industry**



# **AFIR, a successful expansion**

- **AFIR born at the 23rd International Congress in Helsinki, from an initiative of French actuaries**
- **The “traditional careers” do not attract as many actuaries in France so they ventured into wider fields**
- **AFIR succeeded in attracting under the actuarial umbrella a number of financial engineers and other mathematical wizards**
- **It made a strong contribution to the extension of actuarial research to financial topics**



# Wider fields = Bigger tent?

**The actuarial profession should :**

- become expansive in its activities providing high quality, professional answers to a wide range of finance, risks, societal and business problems**
- Review the possibility to create separate requirements for pension, life, health, non-life, investment, risk management, financial engineering, etc....**



# **IAA initiative for consolidating the scope of the profession**

- Seminar planned in Cancun in March 2002 on the subject of Wider Fields**
- Follow up on previous meeting organized by the UK associations in May 2000**
- Objective is to build a strategic consensus on the issues of scope, “big tent”, educational requirements, organization of the profession**
- Managing pro-actively the relationship with non-actuarial organizations**



# Relationships with non-actuarial organizations

- **Creation of a Supranational committee**
- **Key international organizations targeted: IMF, WHO, UNO, WB, ADB, IADB, BERD, ILO, OECD ...**
- **Technical: IASB, IAIS, AIMR, ISSA, BIS, etc...**
- **Academia and research networks**



# Research driven expansion

- **Interdisciplinary research has the potential of pushing the frontiers of actuarial science, thus driving the expansion of the profession into new fields**
- **Need to get out of the box of existing laws and regulations enter the world and add a wider range of more theoretical research on fundamental professional/scientific issues, extending to public policy and societal issues**
- **Frontiers are being pushed farther in health, finance, demography, environment, etc...**



# Research Push and Pull

- Needs of global profession pulls research into wider fields; inputs and objective credentials from research push the profession into still wider fields
- University-based programs become solid resources for the profession's continuing education, research and public policy activities
- Rather than the membership of the AMA, *“What is more powerful, what gives the medical profession credibility are, in fact, medical schools and the academics associated with them, and their research and publications”*



# Globalization of research

**The globalization of profession needs to be supported by**

- research beyond the products, which are the means, not the objective**
- addressing issues important for the society, not only for the industry**
- serving economies at different stages of development**
- Requires proactive relations with other professions such as social sciences, political sciences, economists**
- Number of universities around the world feature actuarial programs or actuarial departments and illustrate how closing the gap with related disciplines can result in cross fertilization**
  - e.g. Dept of Statistics and Actuarial Science at the University of Hong Kong**



# Research objectives

**Not to decrease what is done now nor to subtract from the existing scope but:**

- enter the world and add a wider range of more theoretical research on fundamental professional/scientific issues, extending to public policy and societal issues**
- get out of the box of existing laws and regulations and control the “rich country” syndrome**



# Actuaries needed for financial management!

- **The push to DC formulas, Notional Individual Accounts, Cash balance plans is forcing a major shift of risks to individuals at a time mortality and real returns are both decreasing**
- **As professionals in management of financial risks, actuaries are painfully absent from the policy debates, thus quantitative issues of costs and returns are neglected in favor of other economic or political objectives**



# Annuitization

- **The trend to DC accumulations may respond to the objectives of increasing savings, stimulating domestic financial markets, decreasing dependency on foreign capital**
- **Lump sums do not provide real financial security in retirement and shift the risks to individuals ill-prepared to assume them**
- **Fixed or better participating variable/indexed Life annuities can provide higher sustainable income in retirement by redistributing mortality gains**
- **Have we developed the techniques for more volatile economies, for example pooling only the mortality risks?**



# A few strategic topics

- **Hedging risks of new technologies: biogenetics, e-commerce, privacy, ...**
- **Quantitative modeling of public policy issues to balance myopic views**
- **Optimization of expenditures on prevention and specific medical procedures**
- **Stochastic basis of RBC, comparison with other financial institutions**
- **Risk Analysis and Management of Projects (e.g. UK 1998 joint initiative)**



# Maximizing career opportunities

- **Diversification in wider fields not only increases opportunities and attractiveness of actuarial career, it offers protection against fluctuations in markets for services**
- **Many developing economies offer a double challenge:**
  - **More fluidity as many areas not already claimed by another profession**
  - **Lower demand for actuaries in traditional fields**



# Questions?

