



Institute of Actuaries of Australia

# Actuarial Involvement in Wider Fields

*An Australian Perspective*

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*Immediate Past President*

# Actuaries in Australia

- All actuaries belong to one Institute
- Less than 50% now say Life Insurance or Pensions is their main practice area
- Increasing number of actuaries are working in General Insurance, Health, Finance, Banking, Investment Management & Other Fields
- Profession is growing at 6% p.a.



# Actuaries in Wider Fields

- **IAAust encourages research and policy development in “wider fields”**
- **“Turning Risk into Value” - where risk exists actuaries can add value**
- **Work with other professions and interest groups to solve problems**
- **Examples - Climate Change, Electricity Markets and Infrastructure Financing**



# Climate Change

- **Kyoto Protocol**
- **Cost and competitive implications**
- **Complex, long term risks to model**
- **Assessing expected impacts of emissions trading on existing operations**
- **Evaluating the impact of Climate Change on new investment projects**
- **Examples - Power Generator, LPG export**



# Electricity and Energy Markets

- Volatility in supply and demand factors
- Competitive market creates new financial risks for buyers and sellers
- Actuaries can advise market participants on risk management and apply stochastic analysis
- Consider alternative risk approaches e.g. weather derivatives
- Does Enron provide further opportunities for actuaries ?



# Infrastructure Investment

- Projects such as roads, airports, power stations, mines and pipelines
- Alternative sources of finance
- Complex financial analysis and cash flow modelling required
- Risk allocation puzzle between investors, lenders, operators, governments, users
- Use scenario and Monte Carlo analysis or other advances quantitative techniques
- Examples - Telstra undersea cable, Tollroads, Airports



# Other New Fields for Actuaries

- **Valuation of Biodiversity and value of pharmaceutical products**
- **Environmental management and Sustainability - eg Timber logging**
- **Evaluation of offers for TV rights for Sydney 2000 Olympics**
- **Socially Responsible Investment Funds**
- **All of these have already been done by actuaries in Australia at least once**

