

The Actuarial Profession

making financial sense of the future

Some Key Issues

in a

'Strategic View of Risk'

The Strategic Management of Risks

Staple Inn Hall, London

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Southampton University

Five key issues in this presentation

- understanding risk and uncertainty in terms which are broad and unrestrictive
- making individual choices in a simple but effective operational framework
- linking individual choices to corporate risk
- finding important opportunities
- linking 'top down' and 'bottom up' thinking

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Understanding 'uncertainty' and 'risk'

- there are lots of different definitions to choose from
- keep your definitions simple, and avoid technical definitions which are restrictive
- for this presentation 'uncertainty' is defined as
'lack of certainty'
and 'risk' is defined as
'possible departures from expectations which matter'

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Some key implications

- we can manage uncertainty first, risk second, which helps to 'keep it simple'
- uncertainty can embrace ambiguity
- threats and opportunities can contribute to uncertainty and risk
- measuring uncertainty is feasible to the extent that it is useful
- we can consider downside risk in terms of 'risk efficiency', maximising expected performance for an appropriate level of risk

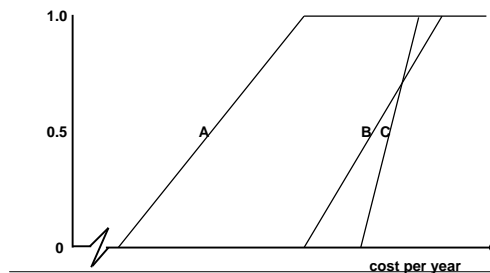
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Making individual choices in a simple but effective operational framework

- a simple example: replacing a photocopier
- a more complex example from an offshore North Sea oil project

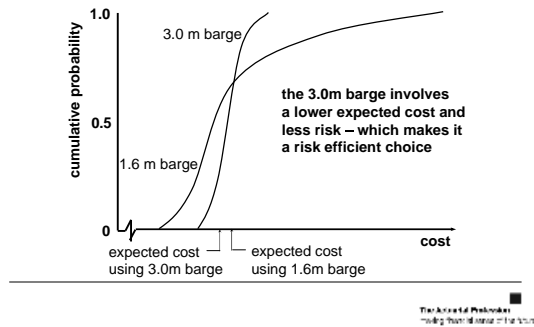
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Overlaid probability curves: replacing a photocopier example



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Overlaid cumulative probability curves: an offshore North Sea project example

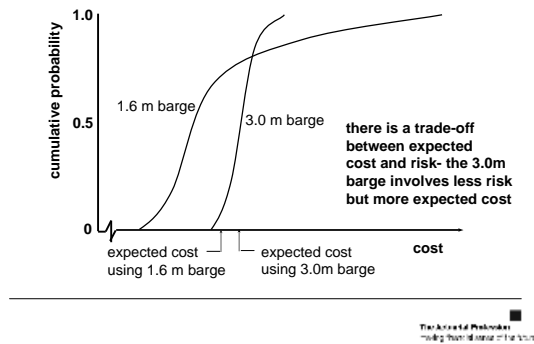


Using expected values to make choices with appropriate trade-offs for risk is central to a strategic view of risk

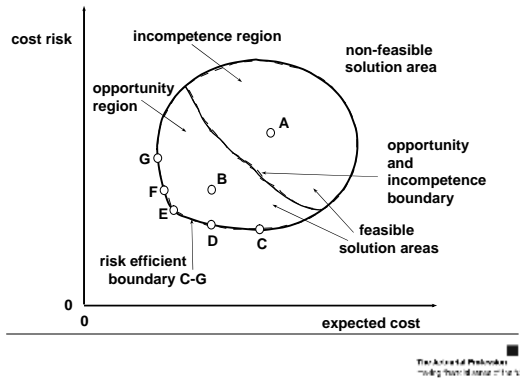
- it involves 'risk efficiency'
- risk efficiency involves a maximum level of expected performance for an appropriate level of downside risk
- ensuring choices are risk efficient can be seen as the core purpose of risk management
- overlaid cumulative probability distributions are a key tool

The Annual Probabilities
Modeling the Risk of the Future

Modified example – shifting the 3.0m curve so its expected cost is larger



Risk efficiency boundary diagram



Understanding risk efficiency at a corporate level as well as at lower levels is crucial

- understanding the issue
- using it to make decisions simpler
- using it as the basis a of culture change:
to replace a 'blame culture' with an
'opportunity culture'

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Review 2011/12

Finding important opportunities

- managing good luck as well as bad luck
- using general responses
- generating strategic flexibility

The Annual Performance
Review 2011/12

Linking bottom up and top down perspectives

- three timeframes required
- strategic planning in a long term framework
- programme planning in a medium term framework
- a strategic planning framework for Ontario Hydro as an example
- operational planning in a short term framework
- examples of important interconnections

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Some concluding comments

- a 'strategic view of risk' matters at all levels of management: operational, programme and strategic
- these different levels are not independent, and they need to be treated in an integrated manner
- using cumulative probability distributions to make choices in terms of the cumulative effect of many sources of risk is crucial
- using responses which deal with many different sources of risk is also crucial

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Questions and discussion

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