

**Barry Rafe**  
**Planning in uncertainty,**  
**Scenario Planning- a tool**  
**for actuaries**

**IAAust BIENNIAL CONVENTION 2003**



# **This paper proposes a scenario planning tool**

- **Actuaries highly professional**
- **Perception that Actuaries have let some stakeholders down**
- **Actuarial toolkit is not effective at communicating outworking of uncertain events**
- **The Scenario Planning process would help**



# The actuarial profession is under pressure to deliver on promise

## The Actuary

*Considers the future and makes sense of it\**

*Wherever there is uncertainty of future financial outcomes, actuaries are sought after for their valued advice and authoritative comment\**

# **This paper describes a scenario planning technique**

**This paper applies a technique used for broad based strategic planning**

**Scenario Planning was originally developed by Shell in the 1970's.**

**Scenario Planning develops different visions for the future**

**Using these visions can analyse issues and implications**



# key terms

- *Driving Forces* -
- *Critical Uncertainties* -
- *Implications* -
- *Leading Indicators* -
- *Robust Options* -



**Business strategies need to be built around what is expected and unexpected**

**high  
Importance**

**likely to  
occur**

**unlikely to  
occur**

**low  
Importance**



# **Scenario Planning would enhance the actuaries role in driving business strategy**

**Scenario Planning explicitly addresses uncertainty in the planning process by providing a methodology to analyse future uncertainties, identify “triggers”, and enable continuous appropriate strategic responses.**

- Scenario planning does not focus on picking the ‘right future’,**



# The Scenario Planning process consists of two main phases,

## Scenario Construction - Phase A



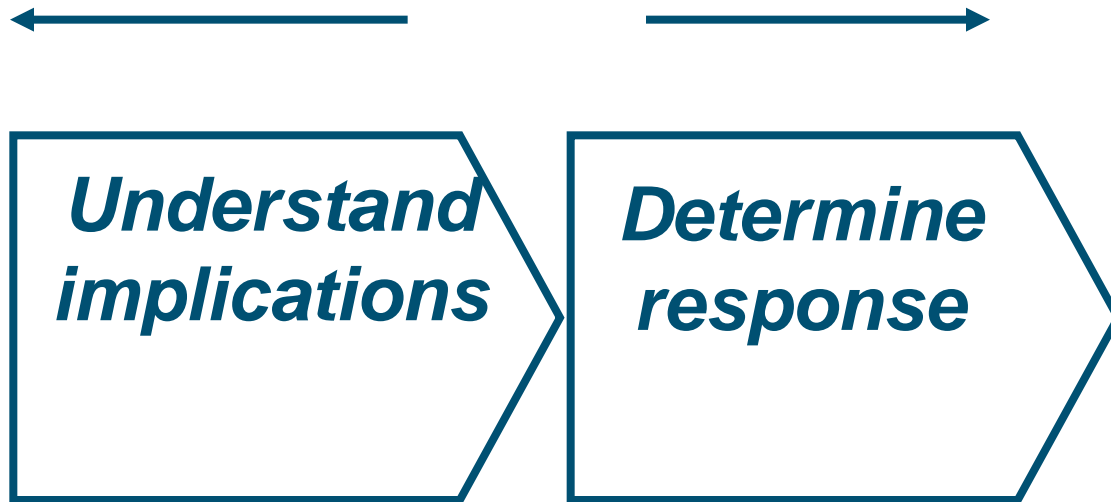
***“WHAT MIGHT THIS  
FUTURE LOOK LIKE?”***





# The Scenario Planning process consists of two main phases,

## Scenario Construction - Phase B



***“HOW DO WE RESPOND?”***



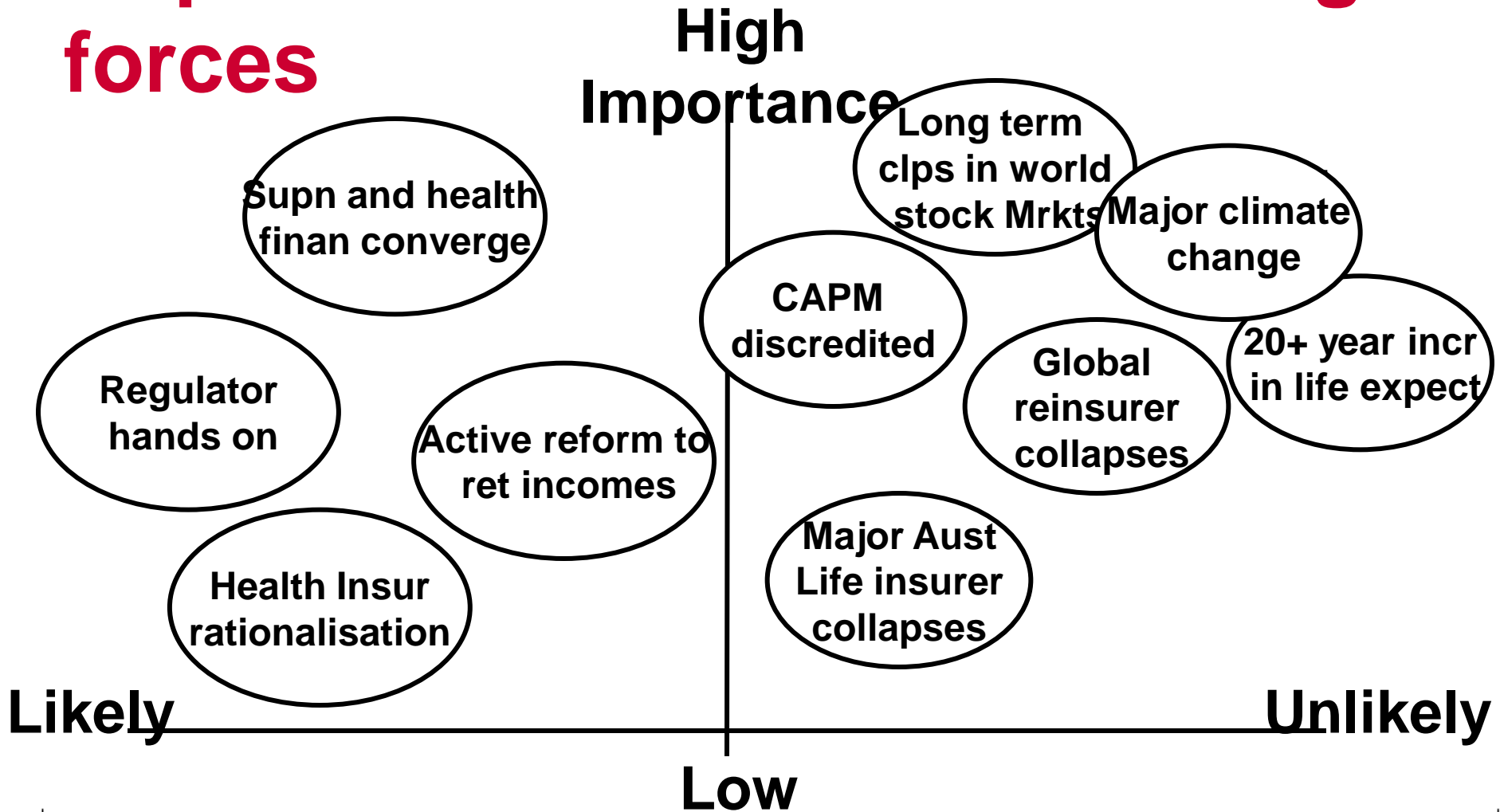
# Scenario Planning can help actuaries provide advice in their traditional areas

## *Set Scene*

- Actuaries in Australia traditionally work in insurance and superannuation
- Recent events have focused attention on the fundamental industry structures
- The focusing issue is the potential implications of structural uncertainty in traditional areas of actuarial advice



# Developing critical uncertainties requires identification of driving forces



# Four scenarios by pairing up two critical uncertainties

World stock  
markets recover

Planned Scenario

Structural Change  
scenario

Steady  
increase in  
life  
expectancy

20+ year  
increase in  
life  
expectancy

Investment Shortfall  
Scenario

Horror Financial  
Scenario

World stock  
markets Collapse



# Need to understand scenarios

**World stock  
markets recover**

**The world returns to  
long term trends**

**Annuity providers will  
struggle  
Government intervention**

**20+ year  
increase in  
life  
expectancy**

**Steady  
increase in  
life  
expectancy**

**Individuals will be  
expected to carry  
financial risk**

**World stock  
markets Collapse**

**No ability to build  
long term financial  
products**



# Four scenarios by pairing up two new critical uncertainties

Life insurers  
remain solid

Planned Scenario

Major review of  
investment strategies

CAPM  
confirmed

CAPM  
discredited

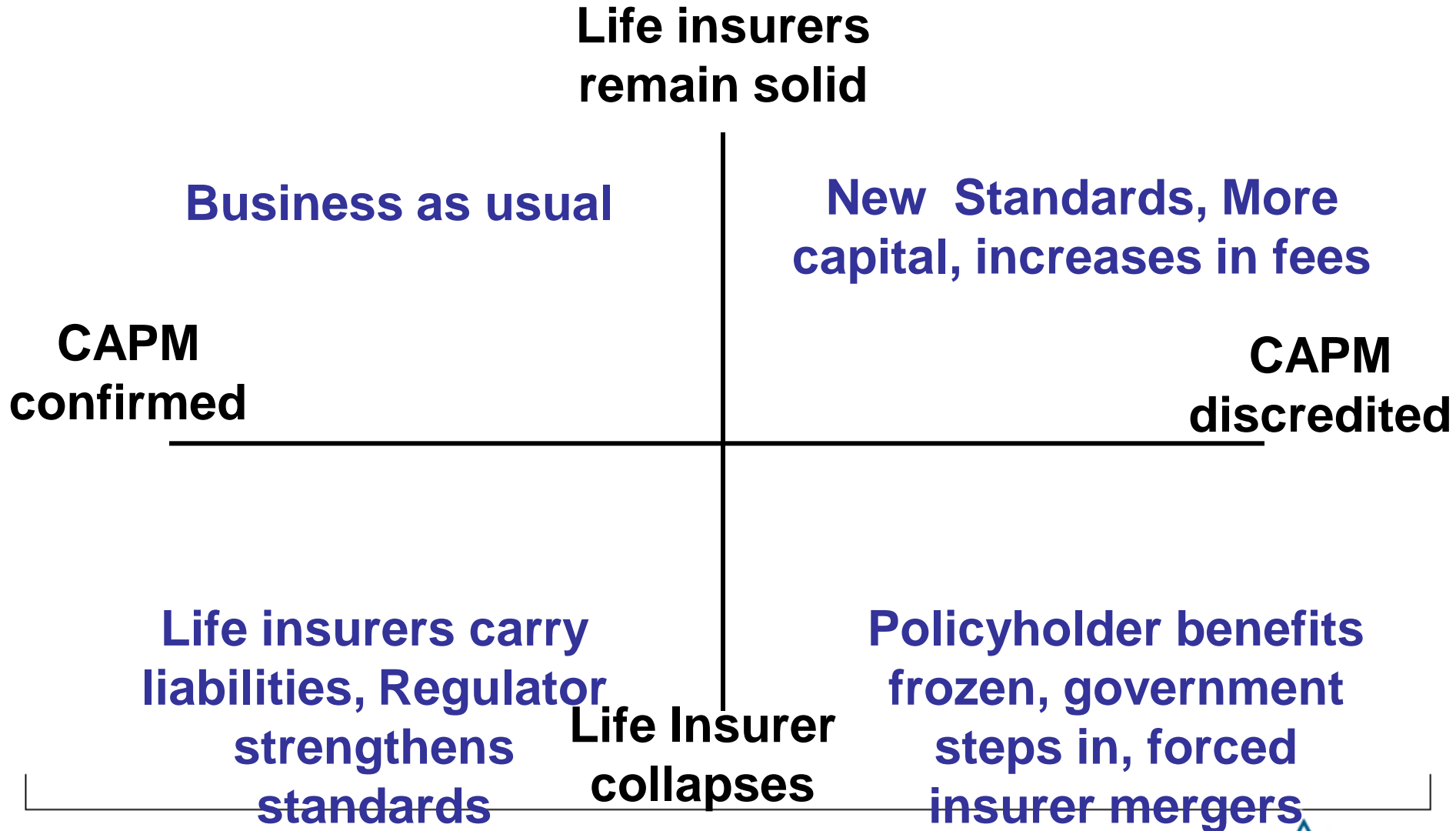
Life Insurer  
collapses

Life Insurer  
collapses

Horror Insurance  
Scenario



# Need to understand scenarios



# Many other examples

**Eg 1) Executive Options Scheme**

**Eg 2) General Insurance Reserving**

**Eg 3) Planning Demand for Actuaries**

