



ASSOCIATION ACTUARIELLE INTERNATIONALE  
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Institute of Actuaries of India



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## *Emerging Risks... Daring Solutions*

### **Operational/Technical Issues in Takaful (Surplus Distribution, Solvency, Pricing, Deficit Funding, ROC).**

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# Operation/Technical Issues

- ◎ Conceptual
  - Objectives of Parties
  - Models
  - Unique Challenges
- ◎ Pricing
- ◎ Assets / Investments
- ◎ Reinsurance & Risk Management
- ◎ Reserving and Surplus Distribution
- ◎ Regulatory framework
- ◎ Solvency and Funding of Deficit (Qard-e-Hasan)



# Conceptual Issues

## ⊙ Linked to operational issues

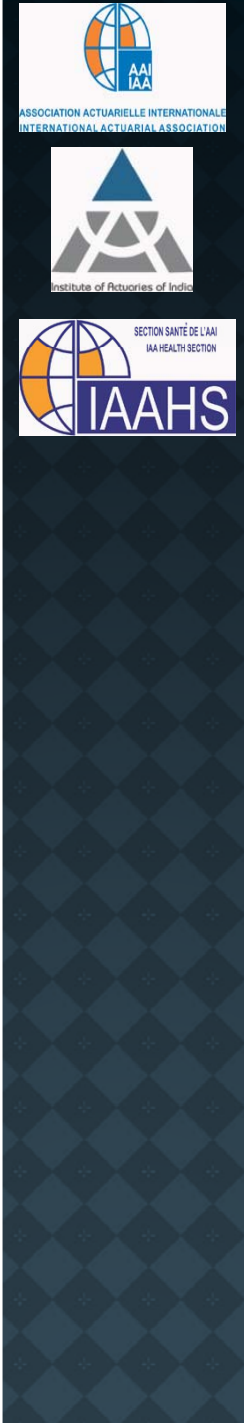
### ■ Objectives of Parties

- ⊙ Shareholder / Takaful Operator : maximize profit and efficient deployment of capital
  - Sources of Profits:
    - ⊙ Expense margins
    - ⊙ Share of investment income, if allowed
    - ⊙ Share of underwriting surplus, if allowed
  - Capital uses: Interest-free loans, Required Capital, Solvency Margins
- ⊙ Policyholder/Participant: Protection at net cost, Shariah Compliance, good value for money
  - Conventional products remain relevant benchmark



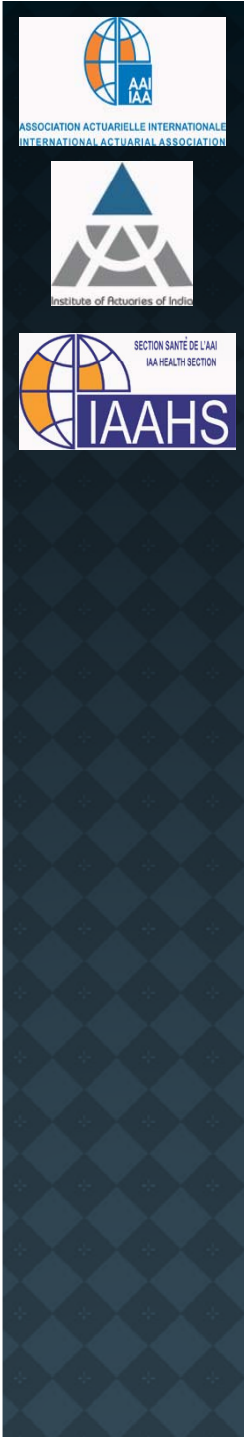
# Conceptual Issues

- Models
  - Which model to use – Wakala, Mudarbah, Waqf, Hybrid
  - Each model has operational implications in terms of surplus distribution, product design, reserving, advertising etc
  - Accounting for models has to be implemented in light of Shariah, Accounting standards and actuarial issues
  - Takaful models can have significant impact on system requirements and level of customization
  - Presence of investment return sharing or “incentive fee” on underwriting surplus can have impact on investment policy and risk selection process



# Conceptual Issues

- Unique Challenges
  - Operations and interplay between Risk Fund, Policyholder Investment, Qard-e-Hasan needs to be understood and implemented
  - Surplus Distribution mechanism
  - Family Takaful and General Takaful are similar but each has some specific issues due to duration of contract and structure of expenses compared to fees
  - Shariah board audits



# Product Pricing

- ◎ Takaful has unique considerations
  - How to incorporate margins within the product
  - Expense assumptions and investment returns
  - Charging for cost of capital and qard-e-hasan
  - Ensuring inter-generational equity through pricing and surplus distribution?
  - Treatment of lapses under Life versus Non-Life
- ◎ Objective is to maximize Shareholder value while ensuring competitive policyholder values
- ◎ Issues on Family Takaful side compounded due to longer duration of the contract



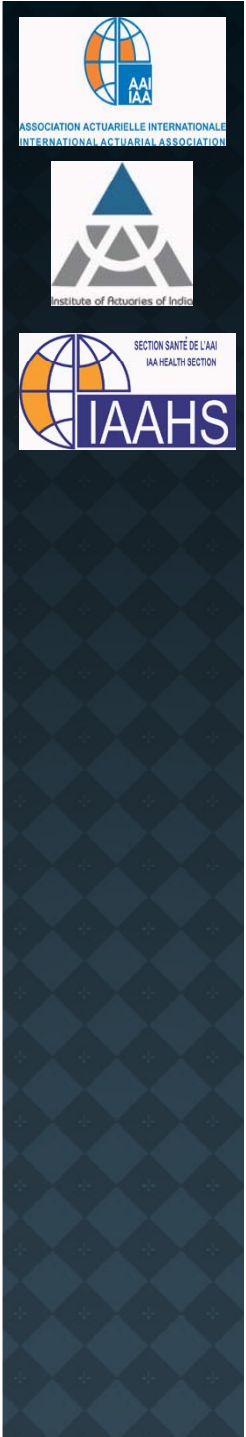
## Assets / Investments

- ⊙ Availability of appropriate assets / investments
  - Shariah Perspective
  - Risk Management Perspective
  - Asset Liability Matching
- ⊙ Investment management is often outsourced
- ⊙ Shariah principles require no guarantees on asset and liability side
- ⊙ Current available options impacts liability structures



## Reinsurance and Risk Management

- ⦿ Limited ReTakaful capacity available in the market – prevents companies to take bigger and more volatile risks
- ⦿ Dispensation to cede to conventional reinsurers has implications on the “purity” of the concept
- ⦿ Reinsurance structures limited –risk premium basis – other structures not utilized
- ⦿ Use of derivatives even for hedging is generally prohibited





# Reserving and Surplus Distribution

- ⊙ Reserving is based on same actuarial principles
- ⊙ Implications of Margins for Adverse Deviations
  - Must be reasonable for Pure Takaful
  - High margins=deferment of surplus
  - Lower margins=greater chance of deficiency
- ⊙ Surplus determination is currently simplistic and raises many equity issues
- ⊙ Surplus distribution requires robust administration and accounting system
- ⊙ Surplus distribution broadly clear in concept, but lacks a lot of specifics



## Regulatory Framework

- ⦿ Distinct versus integrated Regulation
- ⦿ Some allow conventional insurers to operate Takaful “windows”
- ⦿ Some prescribe models
- ⦿ Shariah Board is generally a requirement for Takaful operations – has additional corporate governance and cost implications



# Solvency and Funding of Deficit (Qard-e-Hasan)

- ⦿ Solvency is determined at shareholder's level
- ⦿ The formulae / methodology for solvency calculation is normally same as for conventional insurers
- ⦿ Rating agencies are trying to come up with rating structures for Takaful companies
- ⦿ Funding of Deficit has to be done by Takaful operator
  - Interest Free
  - Superior claim to future surplus
  - Implication is to pass risk back to the shareholder / operator

