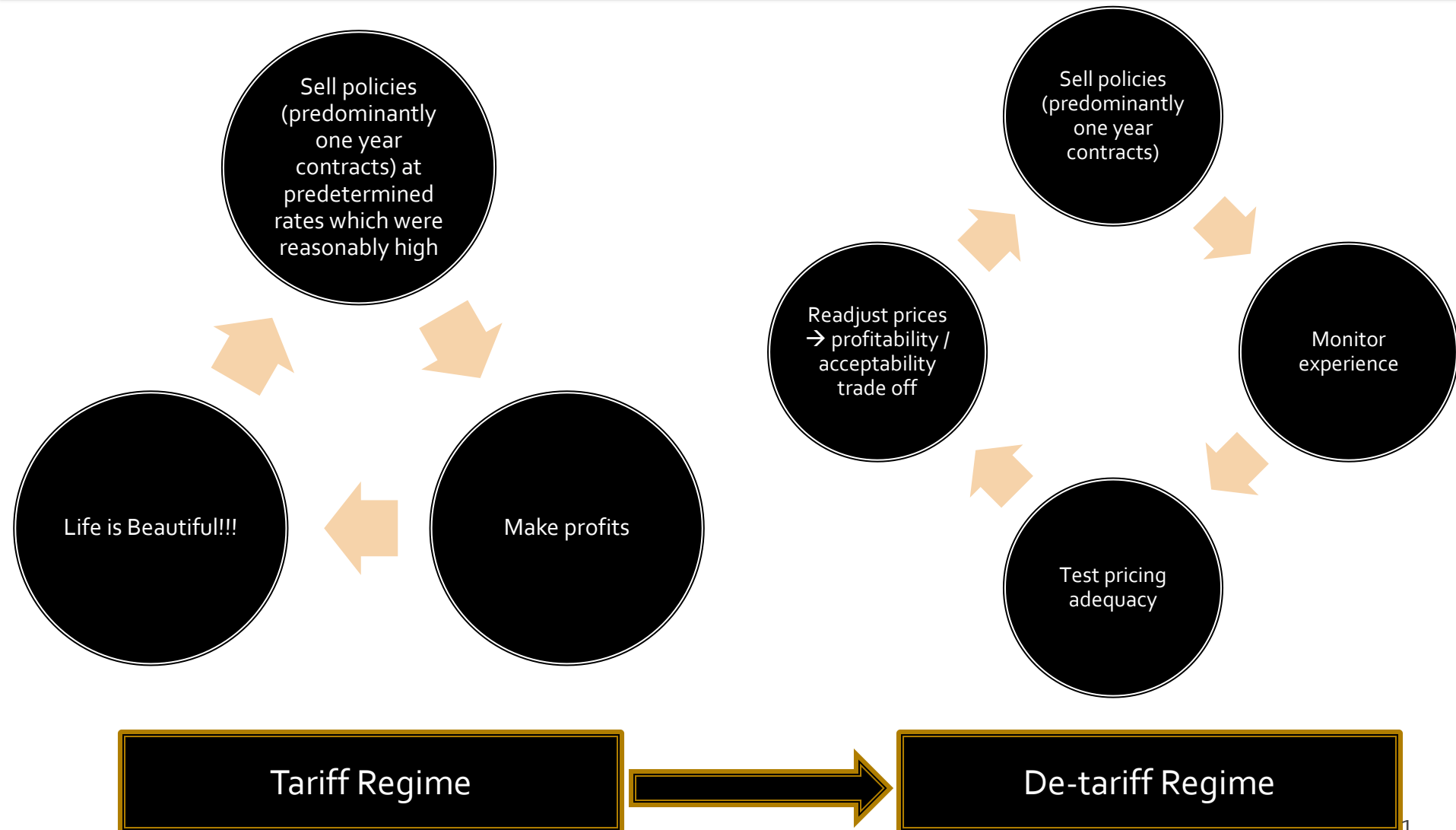
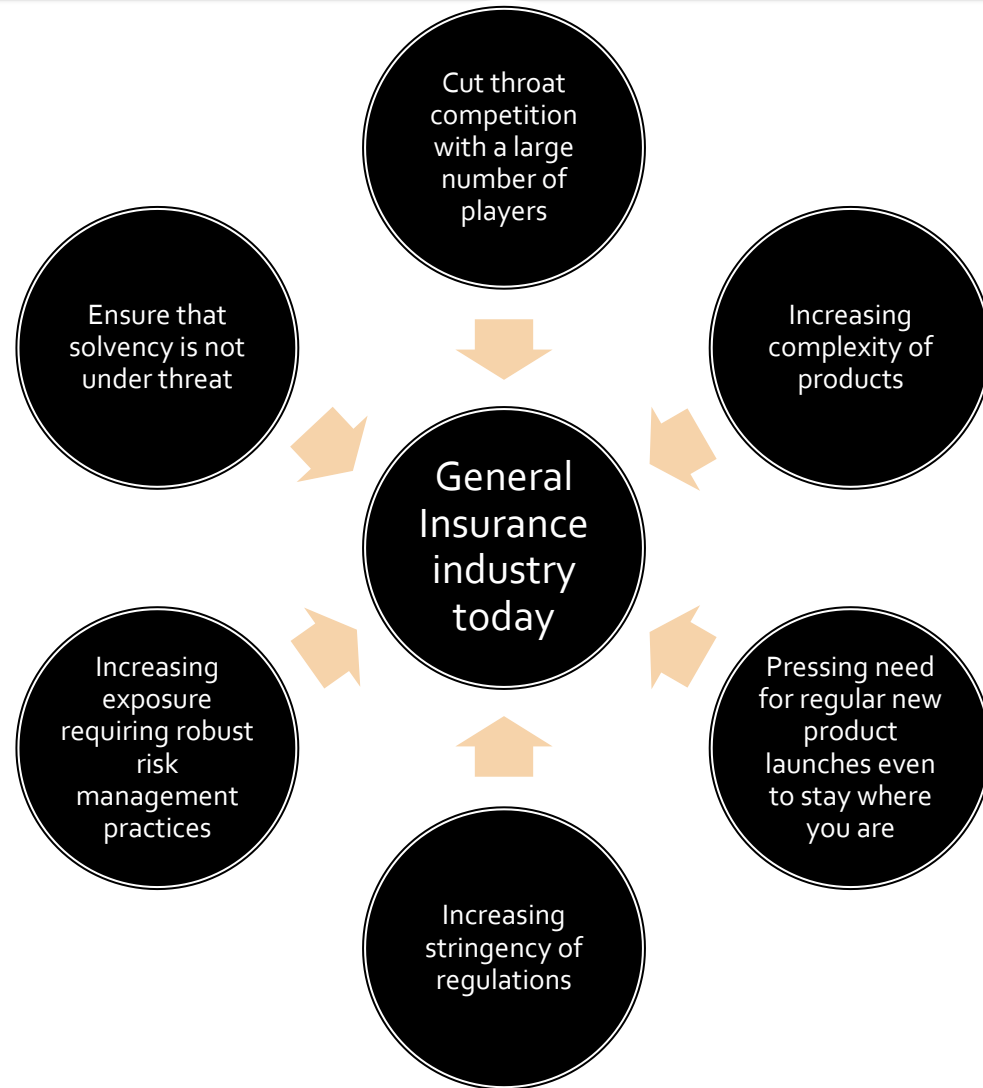


# Evolution of the industry



# Multiple headwinds affecting the industry today



*Role of actuaries has increased substantially with the exponential leap in information technology and availability of massive amounts of data*

WE HAVE A GIGANTIC DATABASE FULL OF CUSTOMER BEHAVIOR INFORMATION.

EXCELLENT. WE CAN USE NON-LINEAR MATH AND DATA MINING TECHNOLOGY TO OPTIMIZE OUR RETAIL CHANNELS!

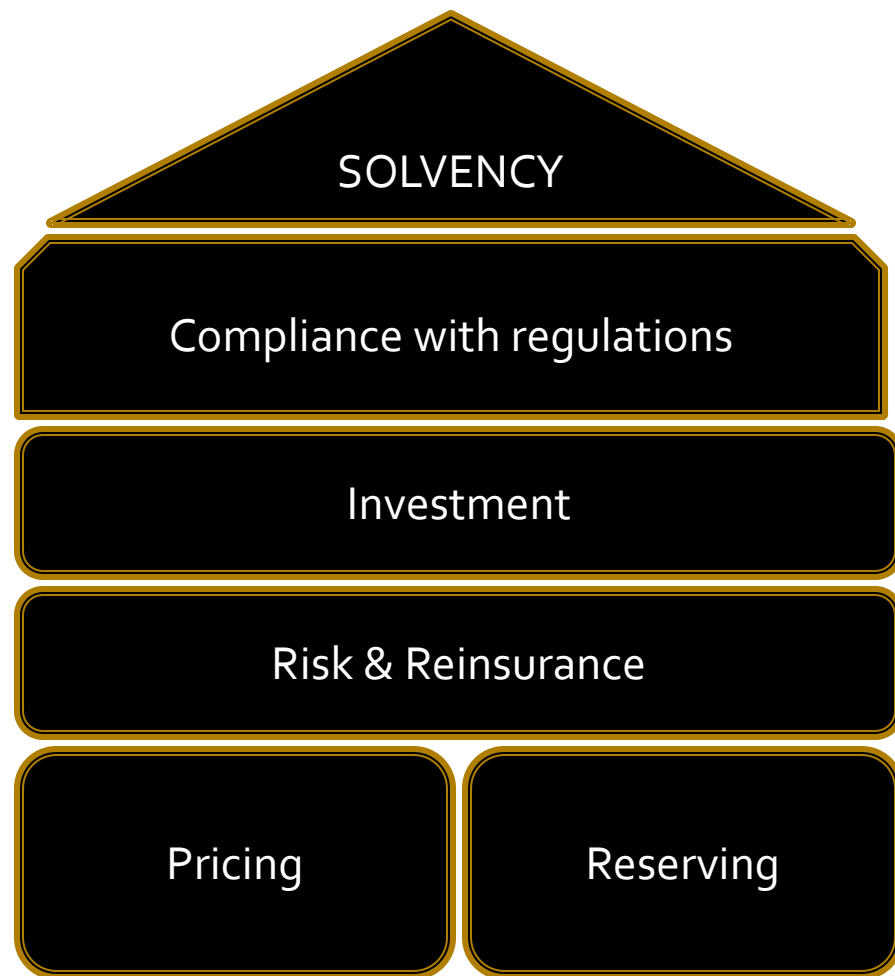
IF THAT'S THE SAME THING AS SPAM, WE'RE HAVING A GOOD MEETING HERE.

www.dilbert.com scottadams@aol.com

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# Role of Actuaries in GI

- IRDA Appointed Actuary regulations 2000 requires every GI company to necessarily have an Appointed Actuary on a full time or on a consultancy basis
- Further notification in Feb 2013 which mandates GI companies to have the AA on a full time basis



# Pricing

- Adequacy of pricing
  - Pricing for new products
  - Experience monitoring of existing products
    - Identifying unprofitable segments
    - Suggest the pricing action that needs to be taken
- Develop models for pricing complex products when available data is sparse
  - Pricing has gone beyond simple frequency severity analysis with methods like GLM gaining prominence
- Helping underwriters with pricing of commercial lines
- Unearth patterns from raw data which can help in improving rating factors

# Reserving

- Calculation of IBNR reserves
  - Auditors rely on actuary's estimate
  - Direct bearing on
    - Solvency
    - Profitability
  - Balance the interests of various stakeholders
    - Regulator → Impact on solvency
    - Shareholders → Impact on profits
    - Income Tax → Impact on profits and hence on taxes
    - Customers → Impact on product prices
    - Himself → Impact on his career 😊

# Risk & Reinsurance

- Actuary has a good understanding of the company's balance sheet:
  - Ability of the company to bear a particular risk – what to bear and how much to cede
  - Commenting on adequacy of premium
  - Quantifying impact on balance sheet before accepting a risk
  - Assess the reinsurance programme of the company and point out areas where he is not comfortable
  - Provide inputs in setting up the reinsurance policy for each year
  - Apprise the management/board in case he finds the impact on net account of certain risks on the higher side and suggest reinsurance options
  - Interpret reports on catastrophe modelling – earthquake, cyclone etc.
  - Exposure analysis
- Reinsurance issue mainly arises in commercial lines where underwriter's role is much more than the actuary – but actuary's inputs remain valuable

# Investment

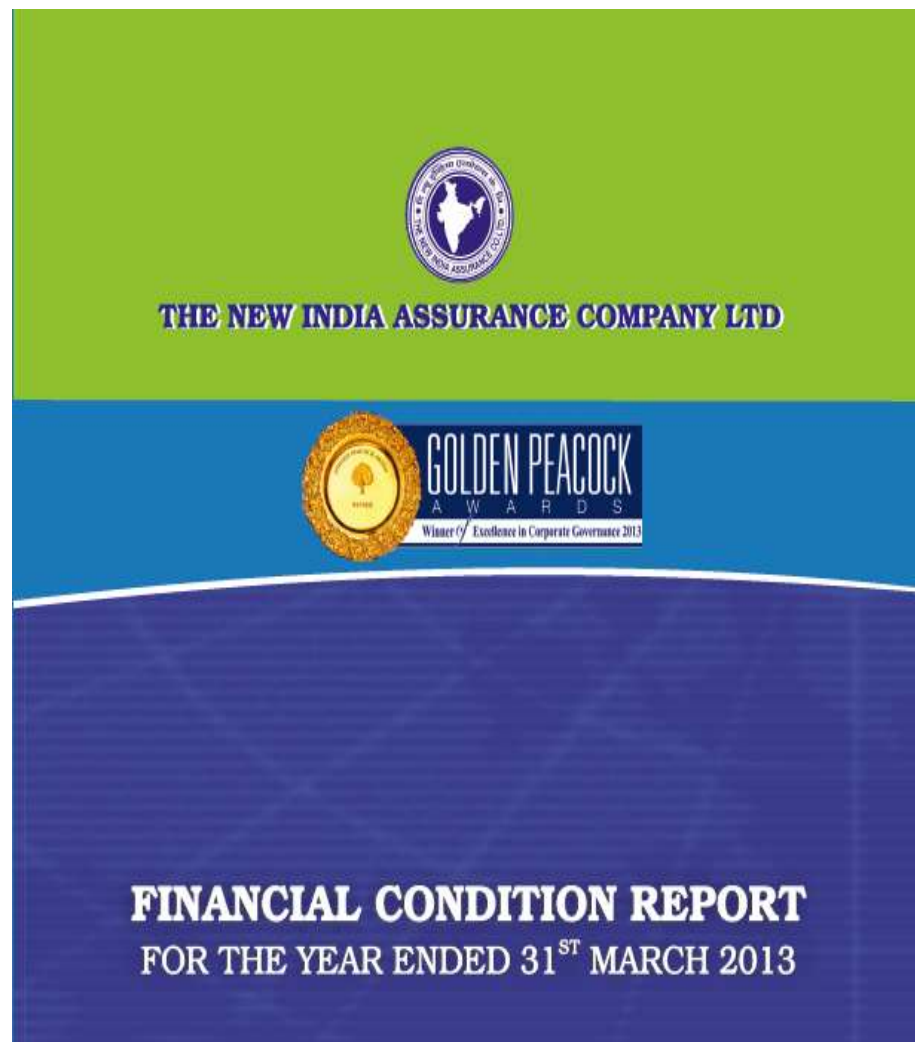
- Underwriting profits continue to elude most insurers
- Investment is not incidental to the business
- Insurance business brings in the cash – investment income brings in the profit
- AA is a member of the investment committee where his views are taken very seriously
  - Actuary can help the Management with Asset Liability Management (ALM)
  - Provide inputs on tactical and strategic asset allocation
  - Independent analysis of the investment team's performance
  - Inputs on what can be done better is expected to be provided to the management/board

# Regulatory Requirements

- AA is the IRDA's representative in the company and often the point of contact for the regulator
- Authority has clearly prescribed the AA's role in the company
  - Reserving (IBNR)
  - New product pricing (F&U) now needing a detailed actuarial note for approval
  - IBNR detailed report
  - Financial Condition Report
  - Economic Capital Report

# Financial Condition Report (FCR)

- Akin to an Annual Report but prepared by AA
- Highlights the AA's observations about the company with clear recommendations on what needs to be done
- His views on pricing, reserving, investments, reinsurance, ALM, solvency, current and future financial condition are all captured in the report
- Presented to the Board and the Board takes it very seriously
- Regulator also takes the report very seriously and can pull up the management if something is amiss



# Issues to be addressed

- Industry needs many more fully qualified general insurance actuaries
  - Supply is marginally better on life side – but roles are very different
  - IAI recognizes this as Certificate of Practice is separately issued for life and non-life actuaries
- IAI should try to increase the supply on GI side without compromising on quality
  - IRDA requires Appointed Actuaries to be less than 65 years old
  - Supply of qualified actuaries happening at “Hindu rate of growth”
    - That too on a low base ☹

Year	Size of GI Industry (Cr)	Total No. Of Actuaries (From IAI website)
Fo4	10,000	204
F13	60,000	259

- Remove *life* actuaries, remove “experienced” actuaries more than 65 years old, remove actuaries working abroad – industry left with very few to choose from

# Issues to be addressed

- Lack of quality database at industry level
- Need to develop some standards
  - An actuary seldom agrees with another actuary (or with the management 😊)
  - More guidance notes so that room for ambiguity is lower
- Actuary versus the underwriter
  - Commercial versus Personal lines
    - Commercial → Role of underwriter is higher
    - Personal → Actuary has more role to play
- Move towards risk based solvency
  - AA is responsible for the solvency of the company
  - But method of calculation of solvency can be improved
  - Current method ignores the riskiness of different exposures
- Collaboration between the profession and the GI industry

# Conclusion

- An actuary is a valuable resource for every GI company and they need to tap his expertise to the maximum
- An actuary acts as an *independent* 2<sup>nd</sup> pair of eyes for the management and the regulator
- Recent IRDA notification requires that all Appointed Actuaries for GI companies should be on a full time basis – a recognition of the growing importance of the actuaries in the general insurance business
- The role of Actuaries in GI can only increase from here on

**Thank You**