

How Statistical Underwriting and Actuarial Pricing can help grow the profits of general insurance companies.

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**What we will cover in this presentation.**

**1. Introduction**

**2. Experience of Motor Markets in Asia**

**3. Strategic consideration for General Insurance  
Companies**

**4. Final words – Mature Insurance Markets**

# Experience of Motor Markets

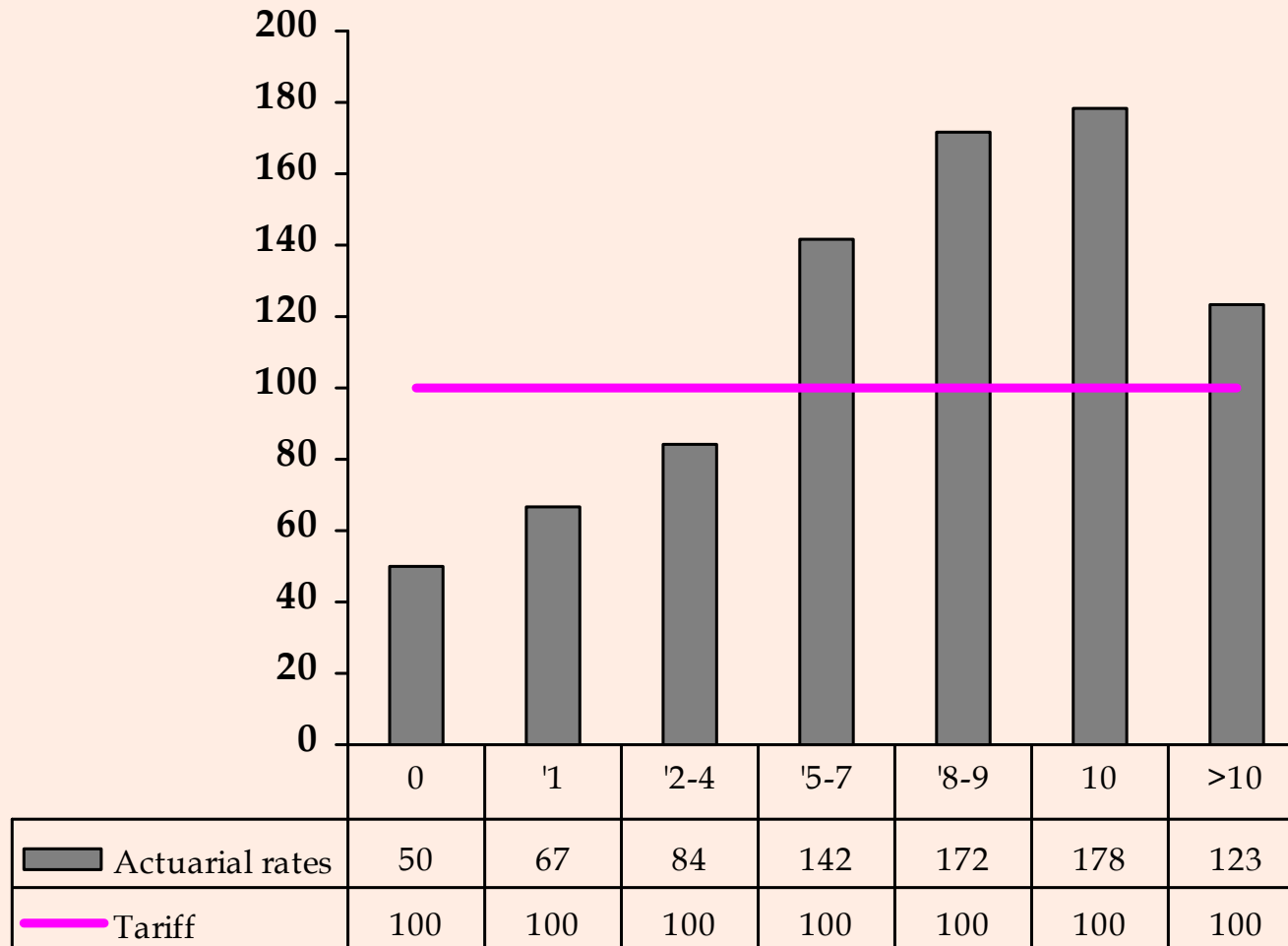
# Singapore Market

# Definitions

- **Rate Levels:** Average % of tariff
- **Profitability :** Gross loss ratios
- **Competitiveness%** : % of policyholders subject to 40% discount off tariff

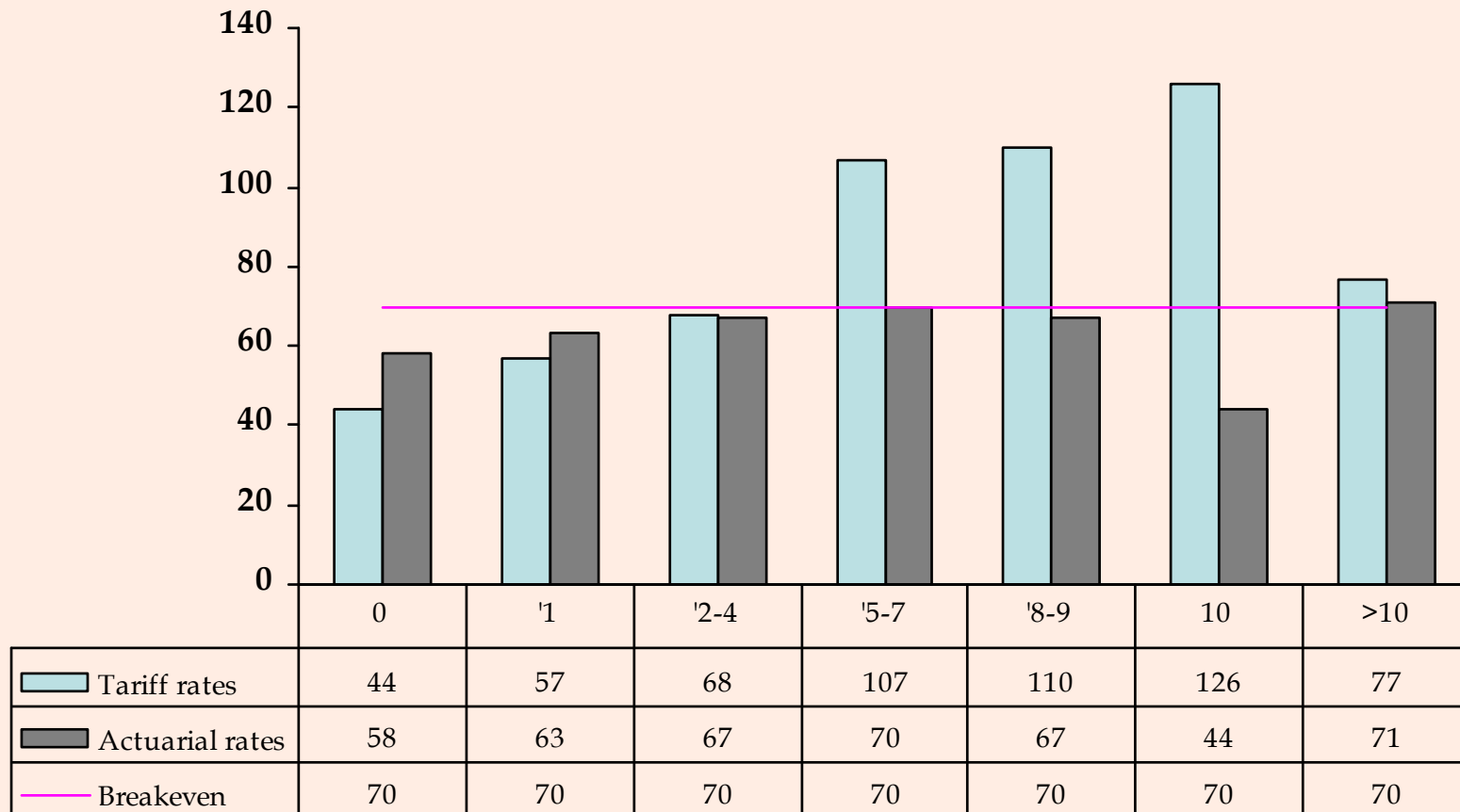
# Rate Levels by Vehicle Age

Attractive rates relative to “old tariff” for new (0-4 year old) cars.



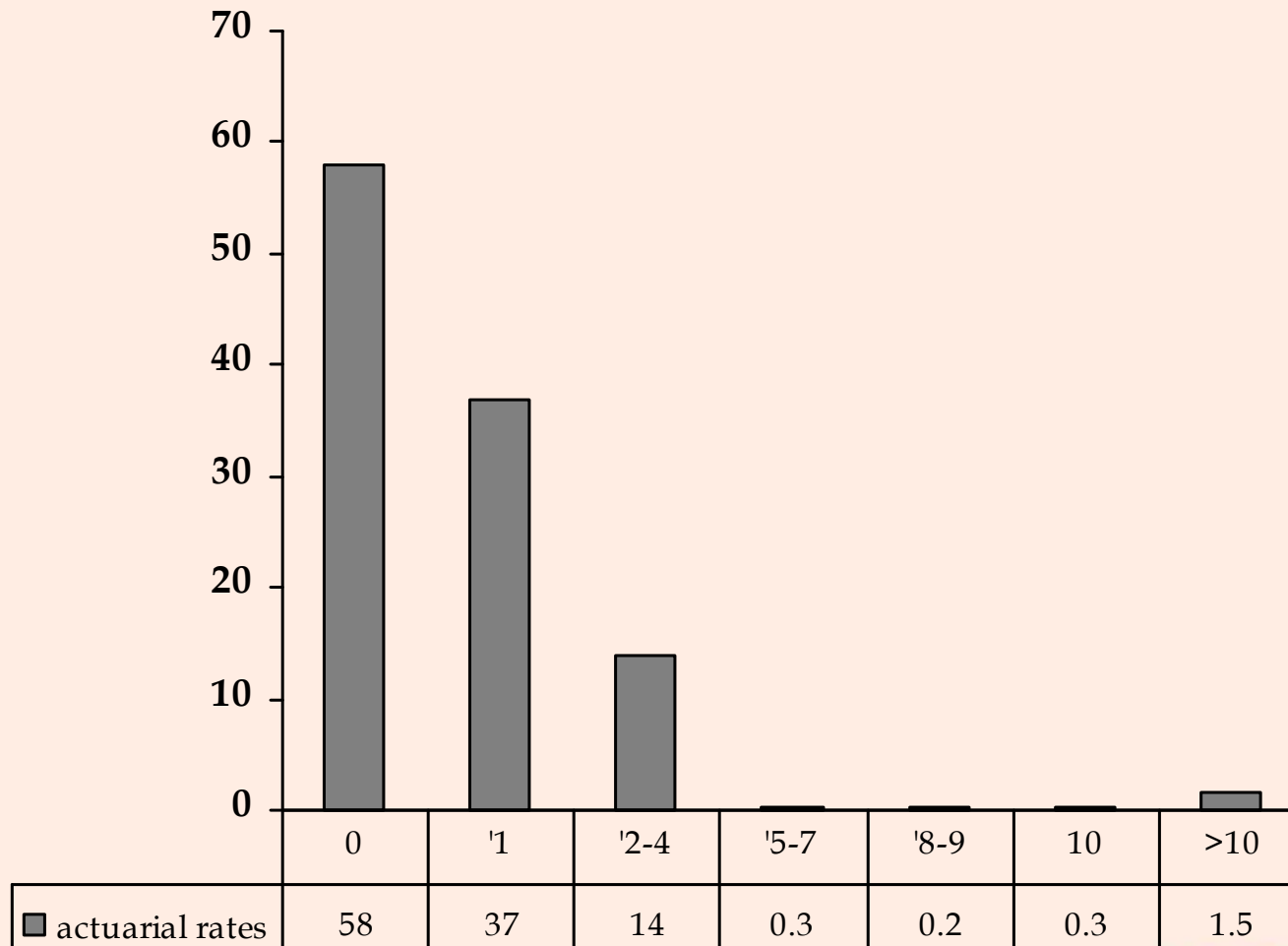
# Loss Ratio by Vehicle Age

Loss ratio goes up with age of vehicle as tariff not reflective of claims experience. Opportunity to write relatively new (0-4 year old) cars.



# Competitiveness % by Vehicle Age

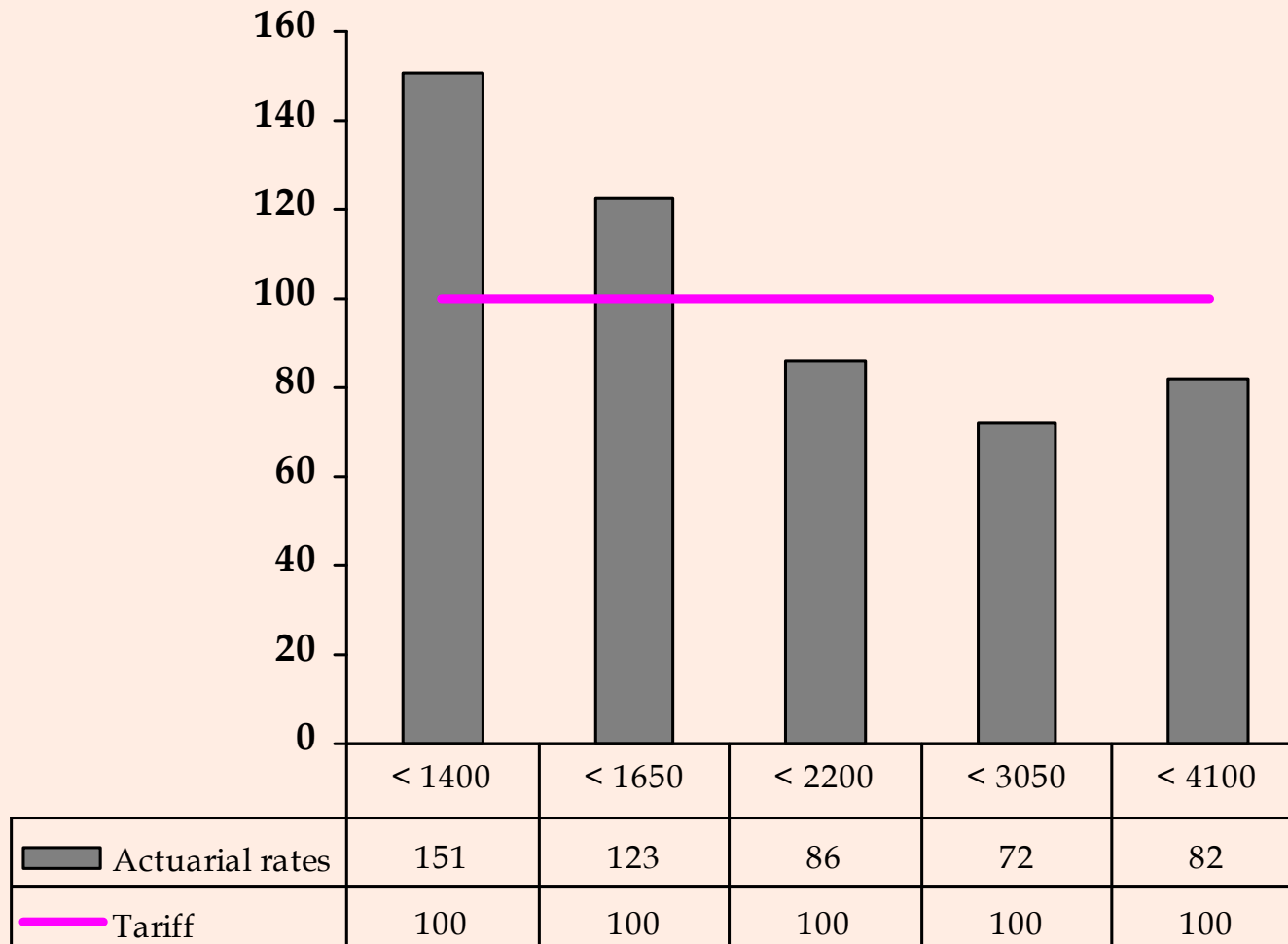
Competitive – 40% discount to tariff - for policyholders with new cars (0-4 years).





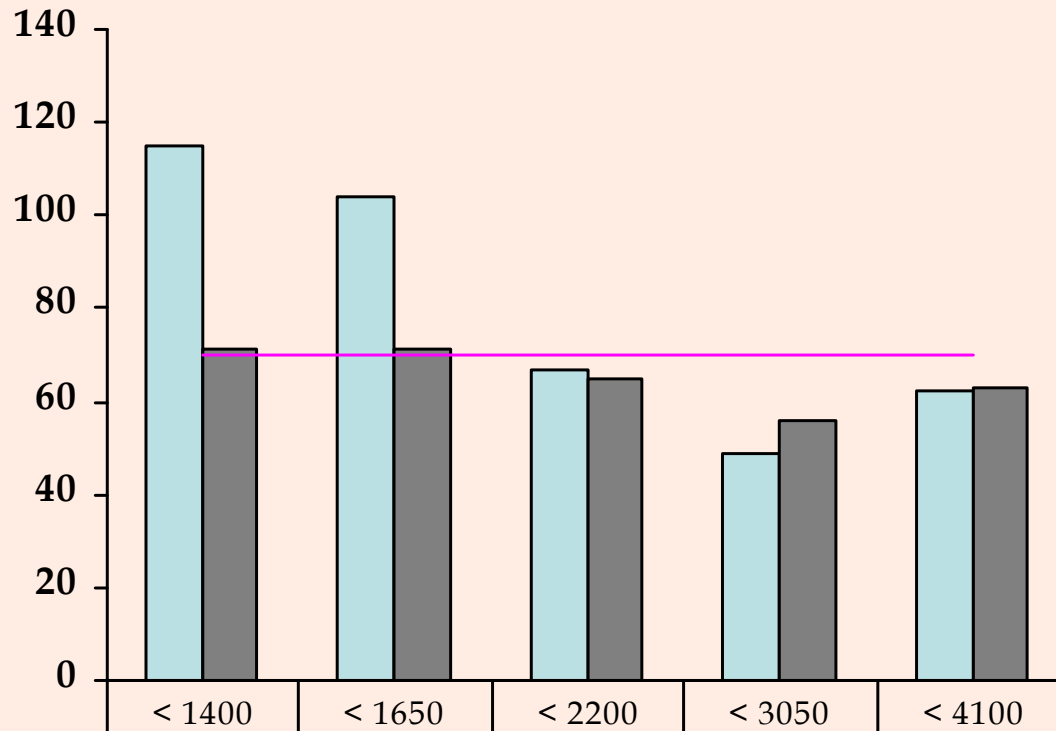
# Rate Levels by Vehicle Capacity




Attractive rate levels for larger cc cars.



# Loss Ratio by Vehicle Capacity

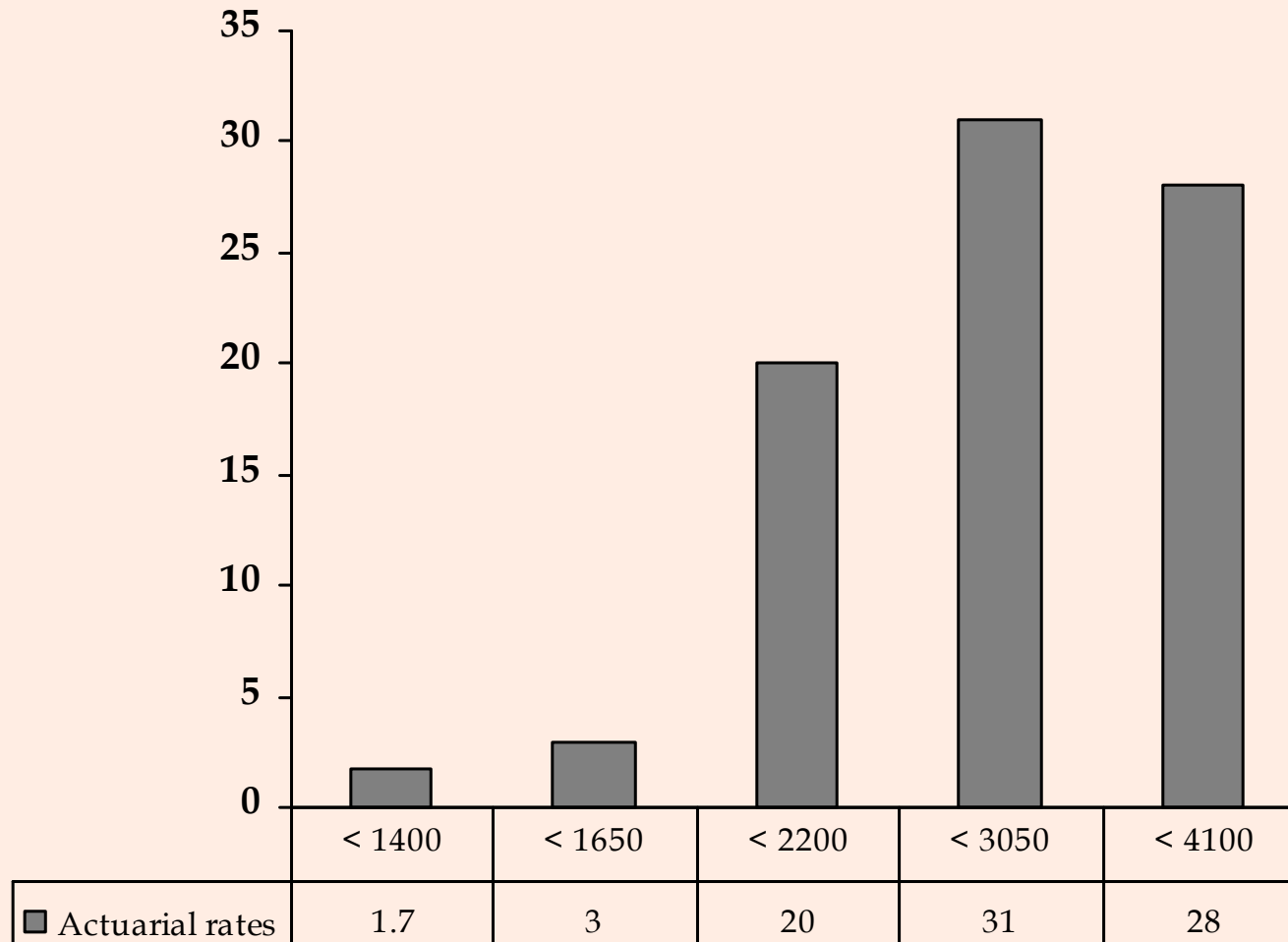
Poor loss ratios for smaller cc cars and better experience for larger cars.



 Tariff rates	115	104	67	49	62
 Actuarial rates	71	71	65	56	63
 Breakeven	70	70	70	70	70

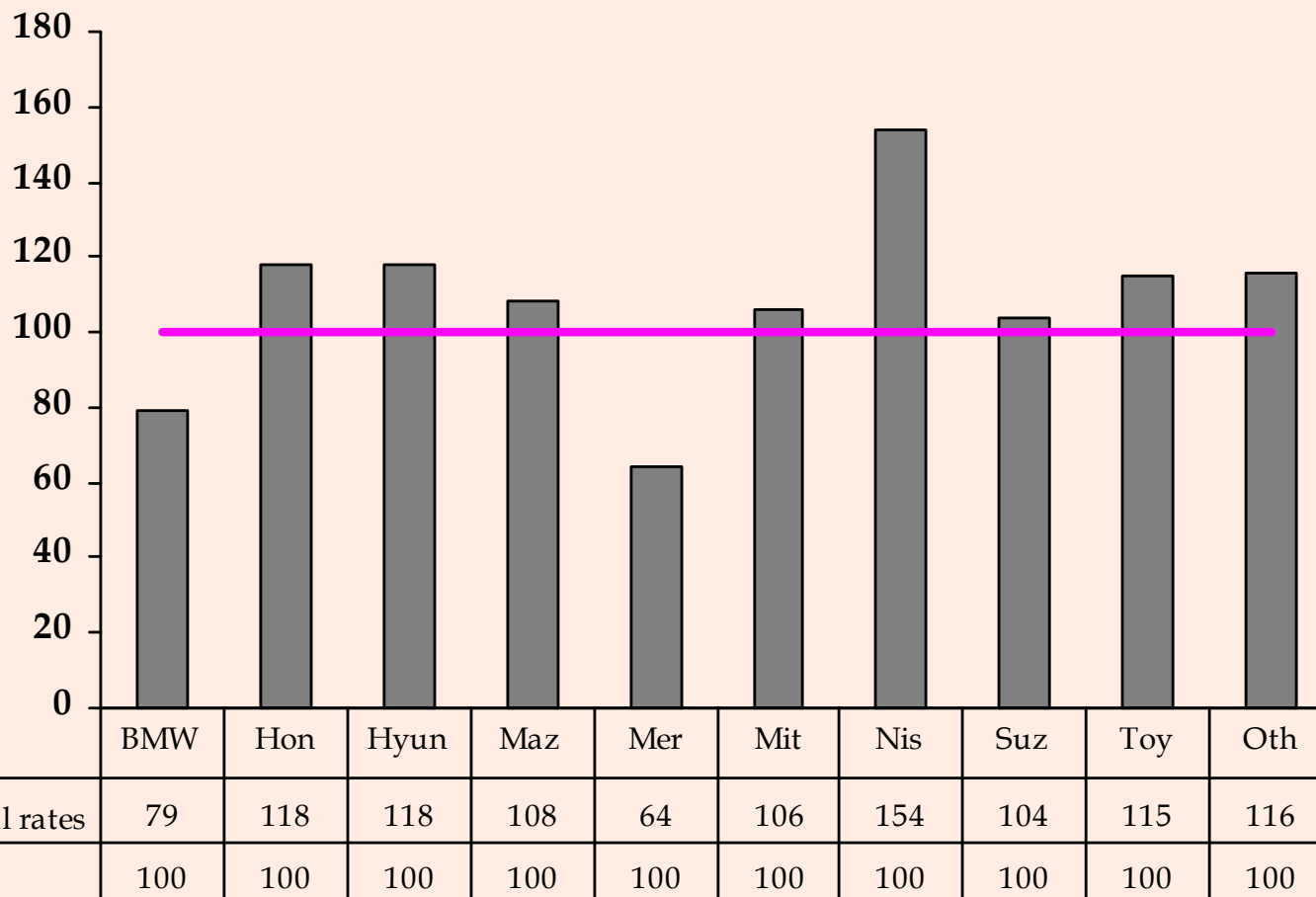
# Competitiveness % by Vehicle Capacity

Competitive rates for larger cc cars.



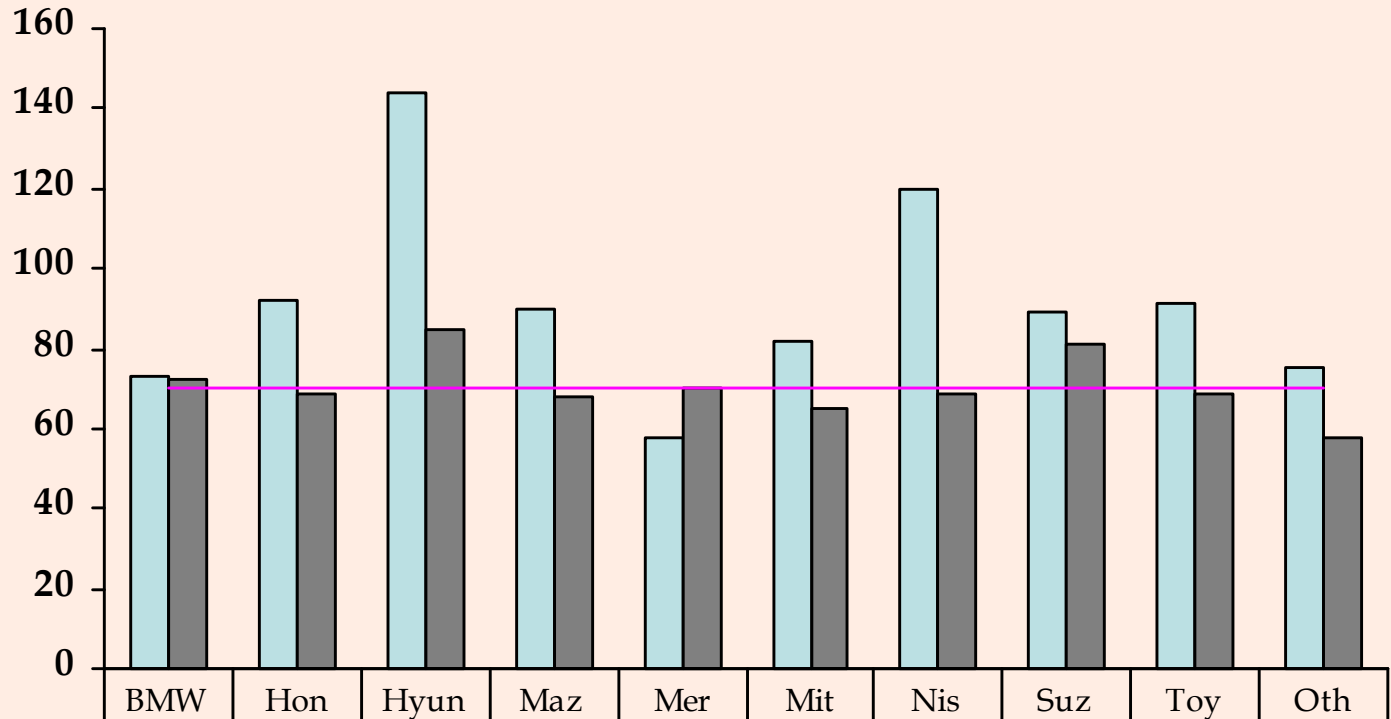
# Rate levels by Vehicle Make

Mix of age and capacity important to understand this chart.



# Loss Ratio by Vehicle Make

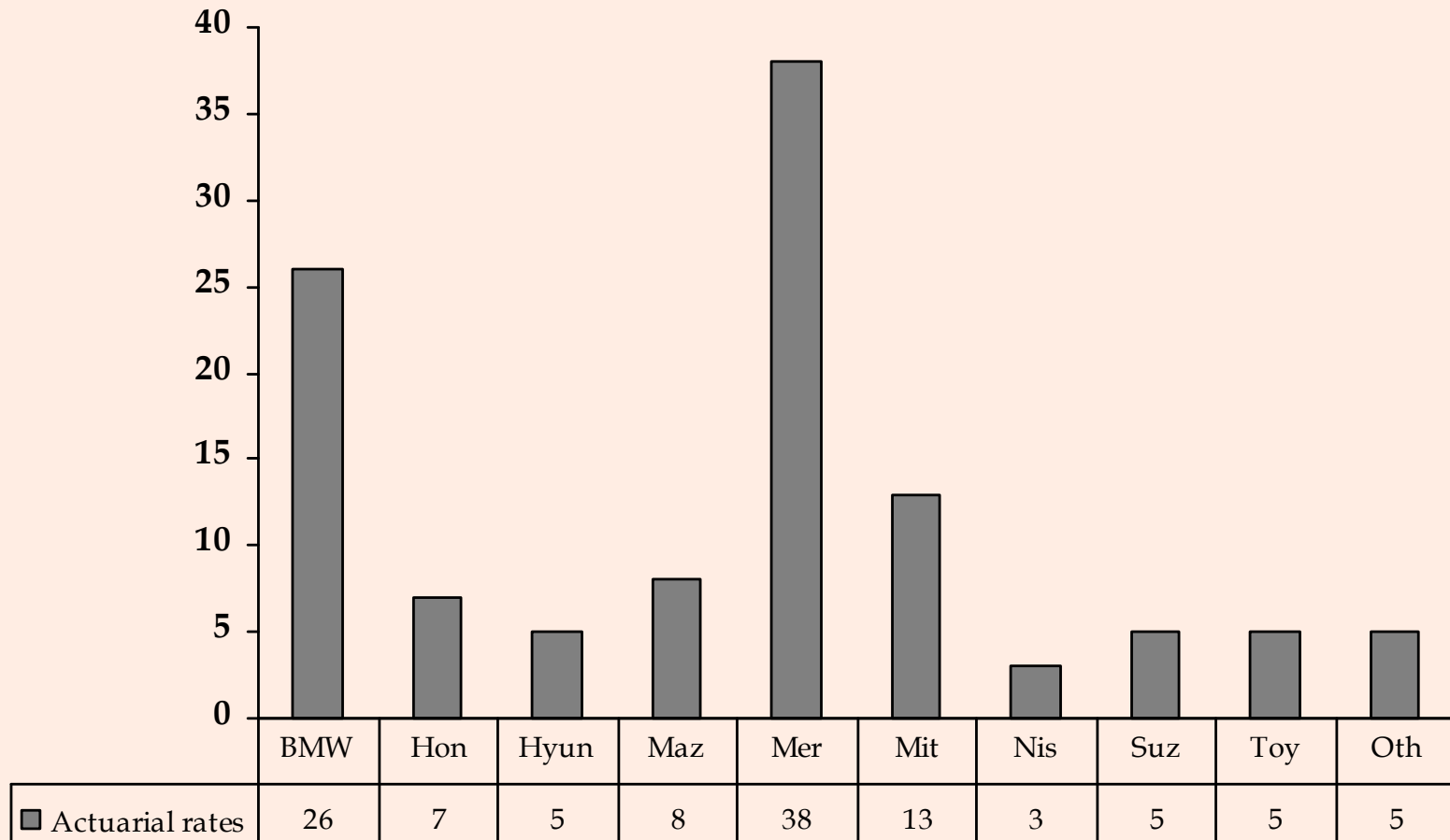
Mix of age and capacity important to understand this chart.



tariff rates	73	92	144	90	58	82	120	89	91	75
actuarial rates	72	69	85	68	70	65	69	81	69	58
Breakeven	70	70	70	70	70	70	70	70	70	70

# Competitiveness % by Make

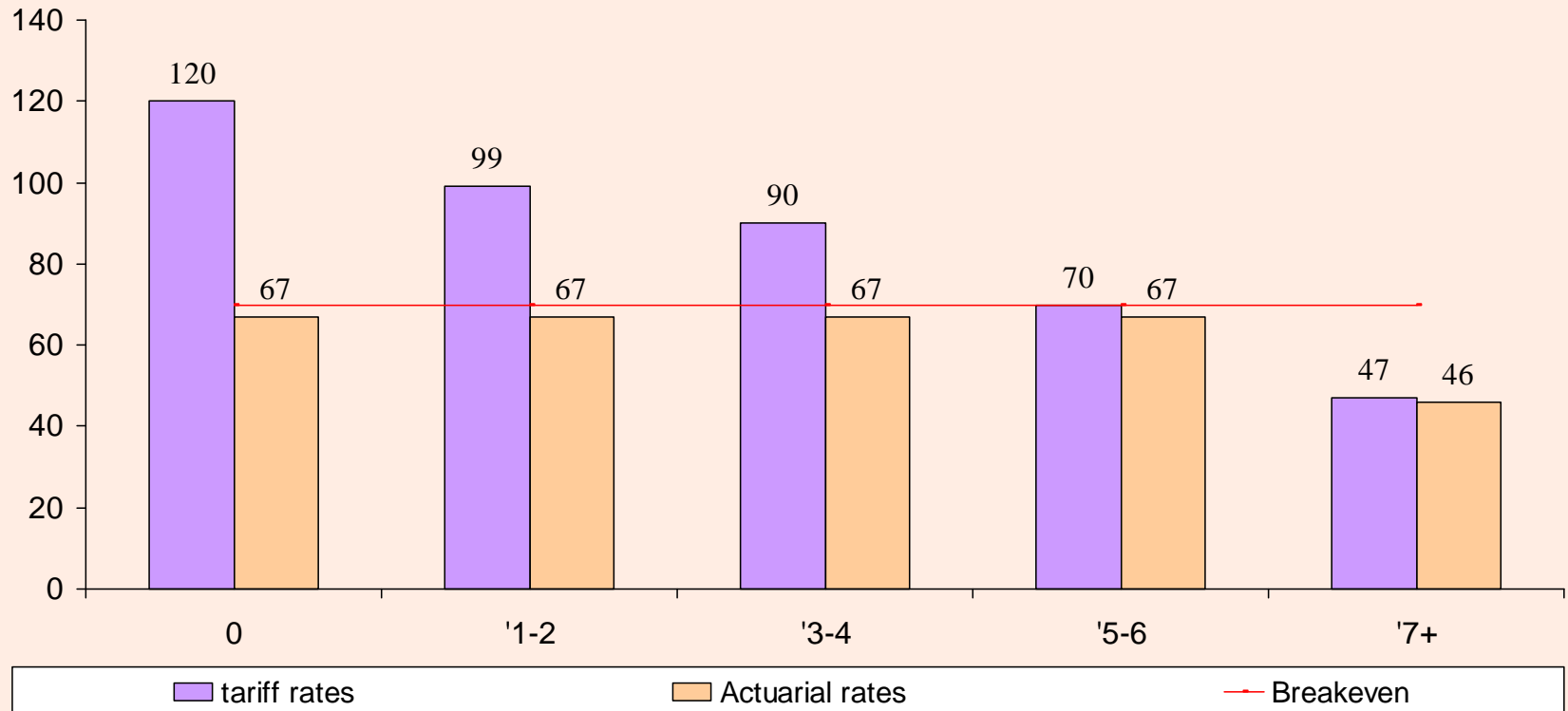
Mix of age and capacity important to understand this chart.



# Hong Kong Market

# Loss Ratio by age of Vehicle

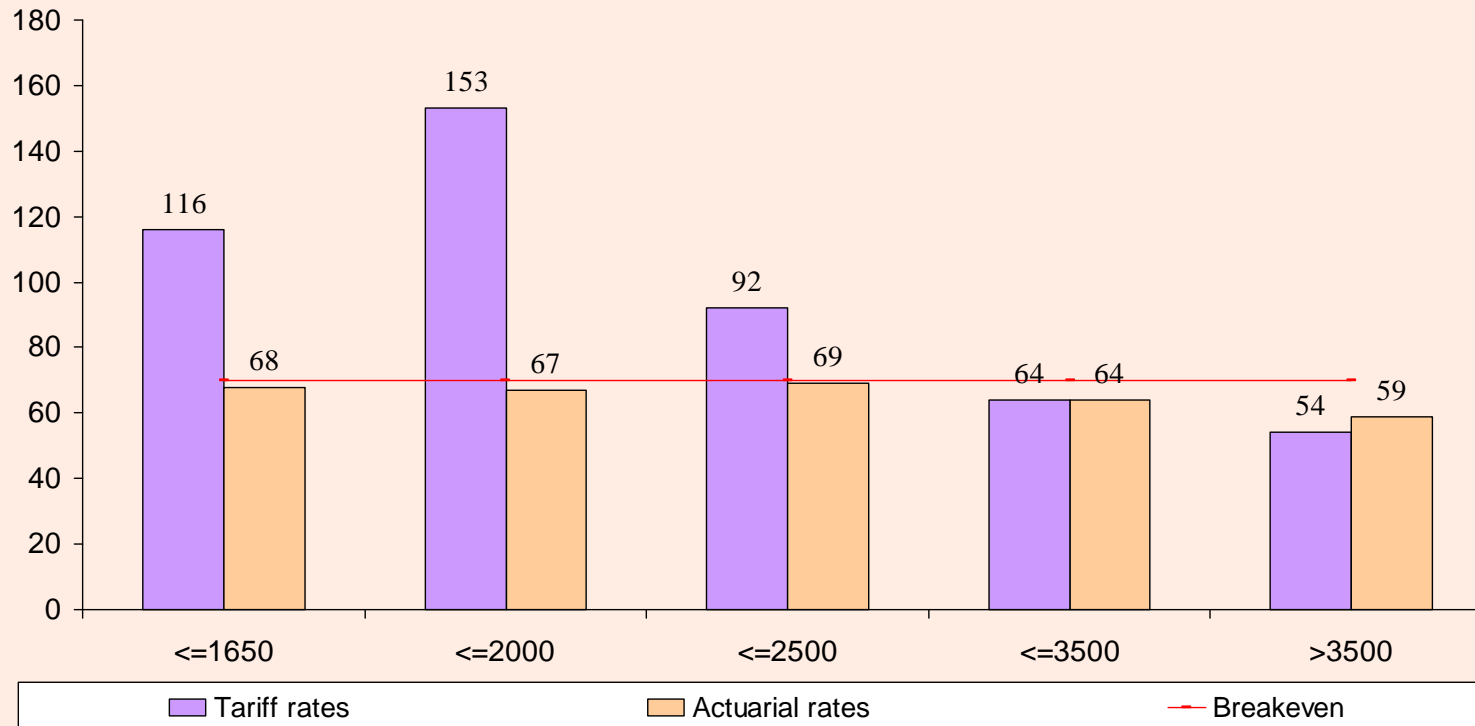
Older cars have better experience.





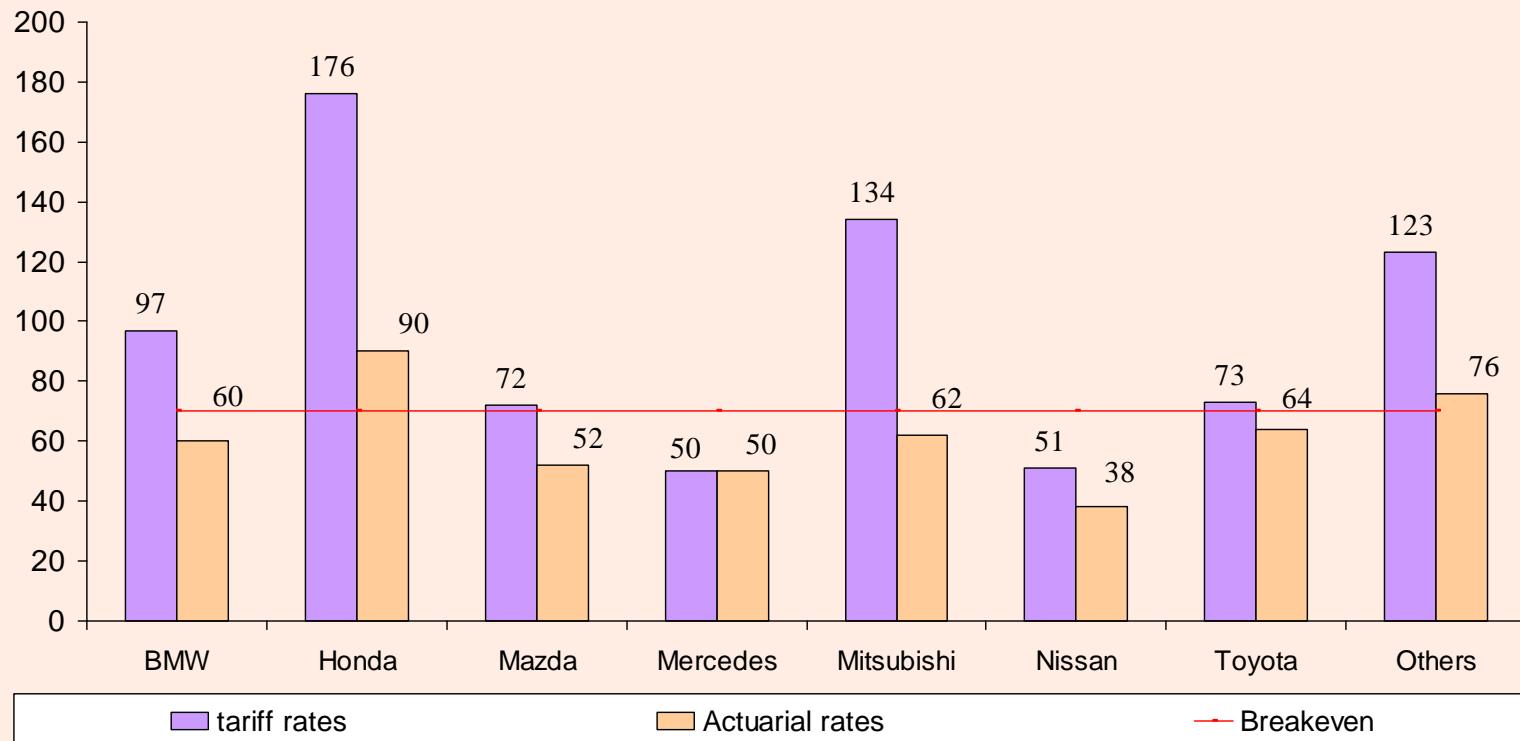
# Loss Ratio by Capacity

Larger capacity cars have better experience



# Loss Ratio by Vehicle Make

Mix by age of car and capacity important to understand these results better.



# Strategic Consideration for General Insurance Organisation

# Strategic Considerations

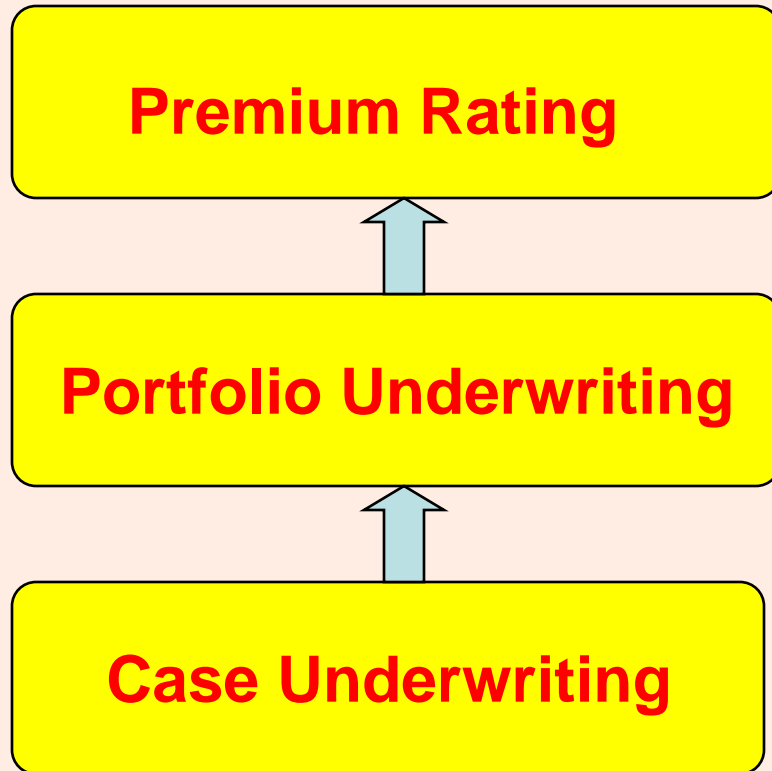
- Underwriting Sophistication
- Strategic Responses in the face of Competition
- Business Intelligence for General Insurance

# Underwriting Sophistication

# Market Practice

- “Market Practice”. What is that?
  - Tariffs in some territories and lines of business
  - Commercial Considerations
  - Case Underwriting Approach

# Spectrum of Underwriting



Uses results at portfolio level to decide rates

Underwriting by the use of information at portfolio level

Underwriting on the merits of each risk

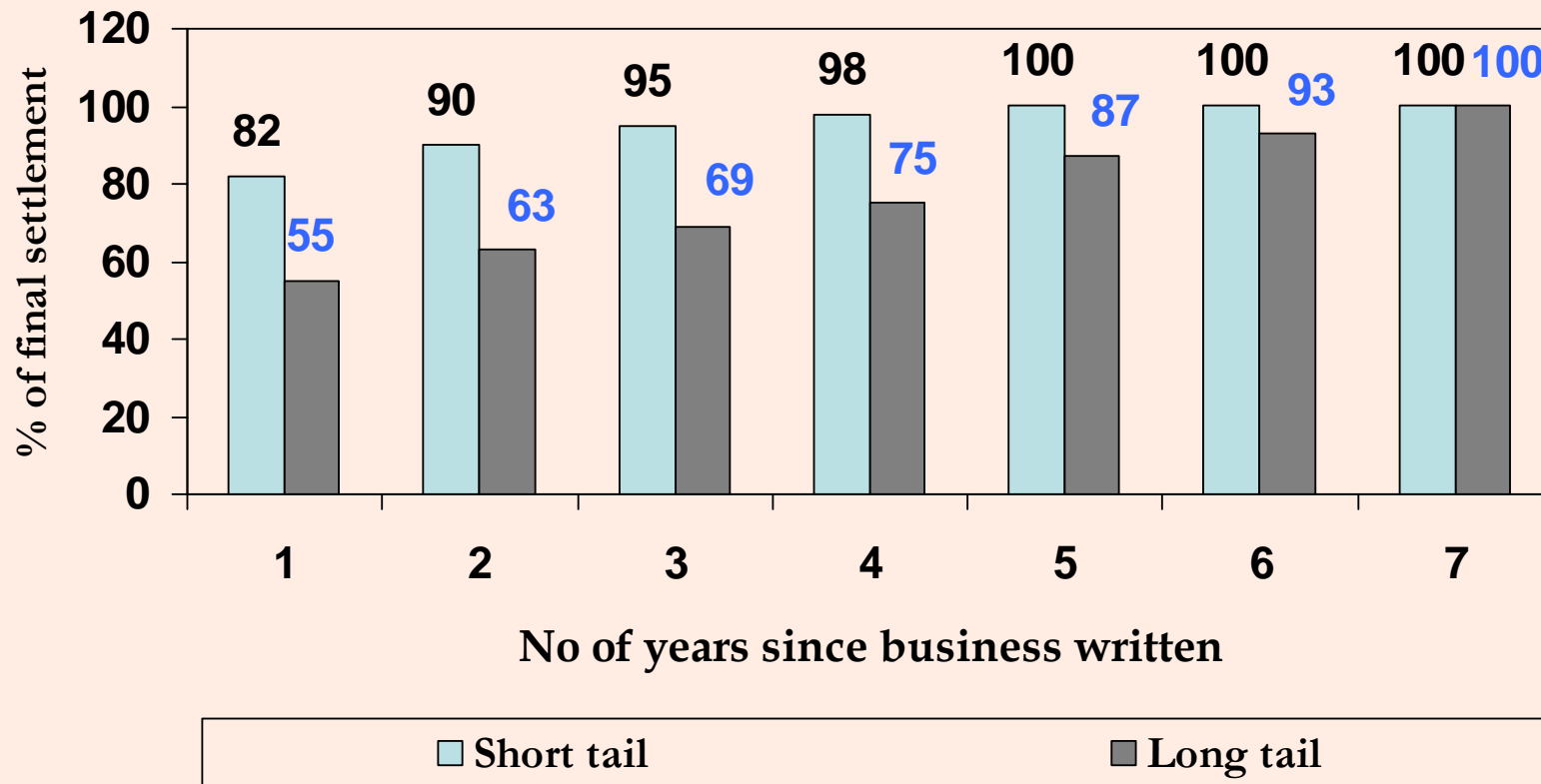
# Why Price?

- True costs of risk unknown
- Subsidy and anti-selection
- Key element of Business strategy – distribution to profitable segments key to profit





# Introduction – True Costs Unknown



# Simple Illustration

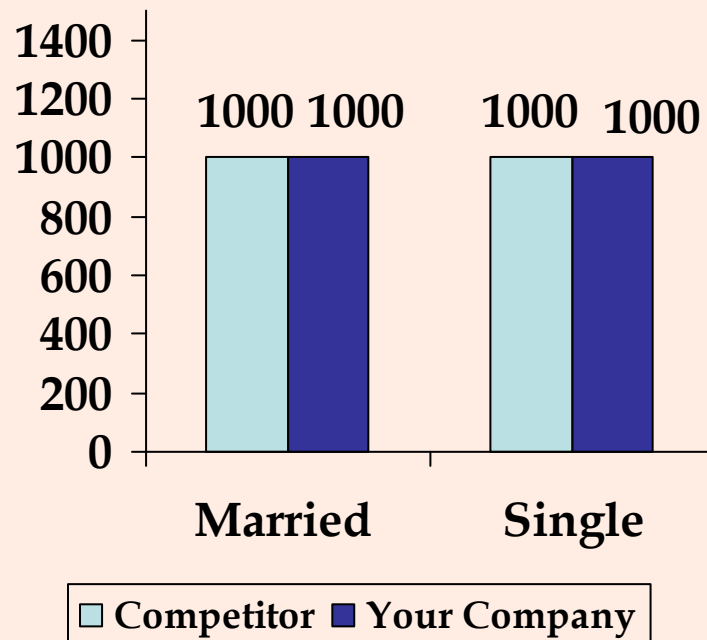
## Impact of Rating & Segmentation

# Simple Case Studies

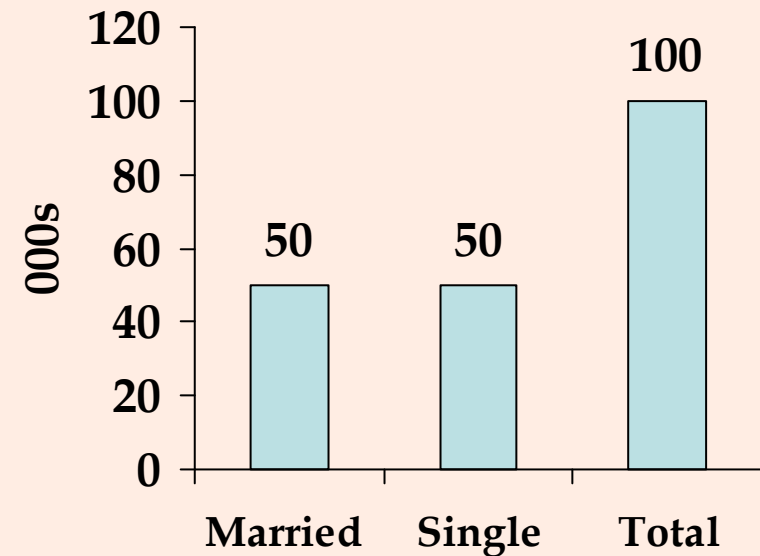
- Current Status
- Tariff Environment – Benefit of Segmentation
- Competitive Environment – benefit of pricing and segmentation
- Anti-selection – what happens when you are left behind

# Current Status

## Premium per policy

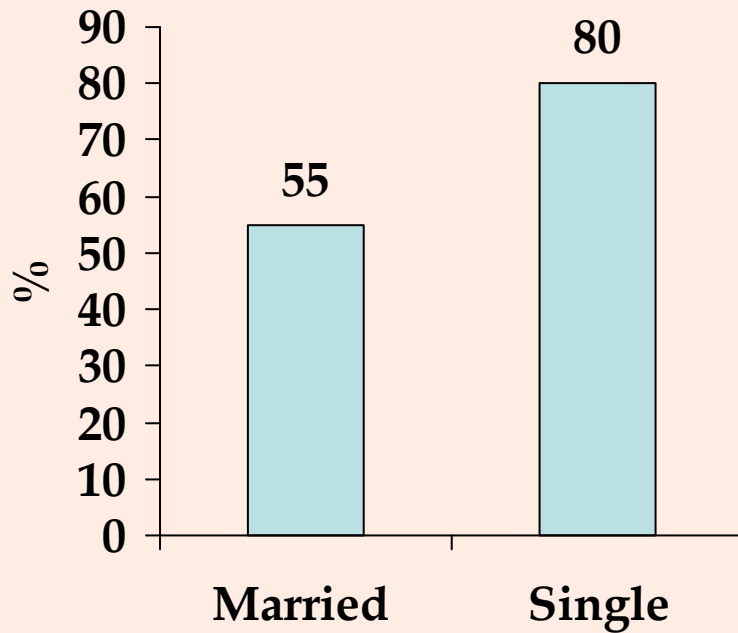


## Number of Vehicles Written



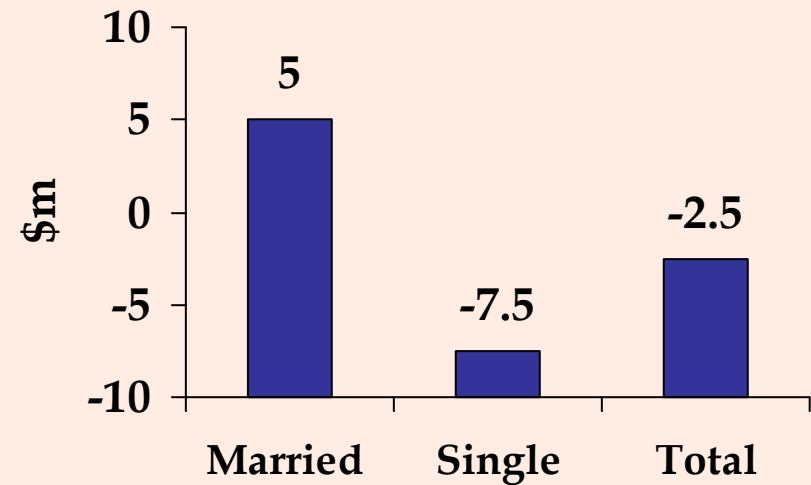
# Current Status

## Loss Ratio



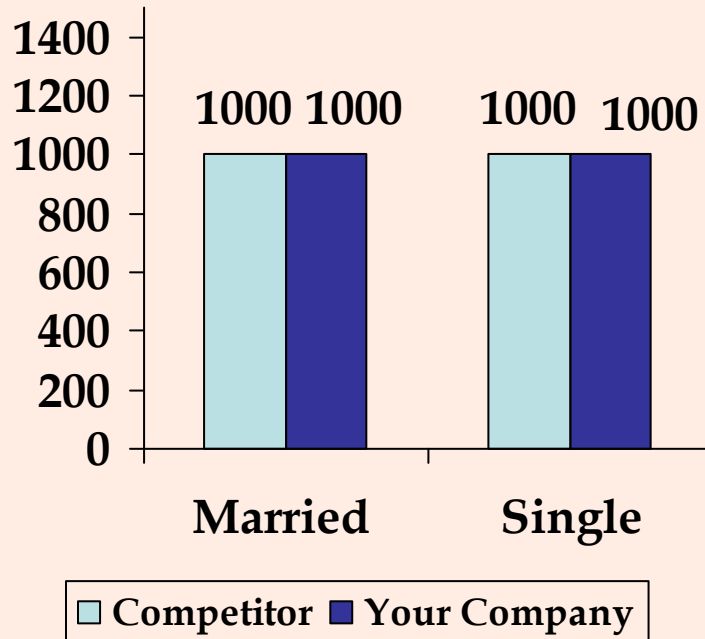
## Profit

( assume 35% expenses & commission)

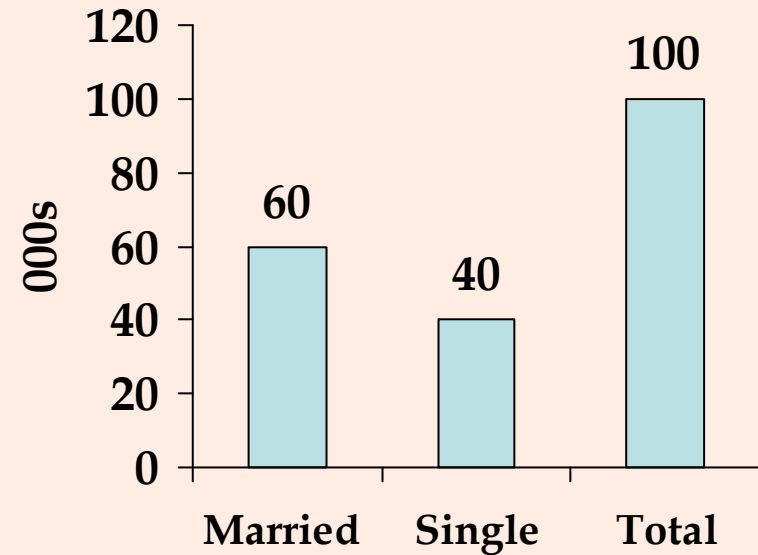


# Tariff Environment – Benefits of Segmentation

## Premium per policy

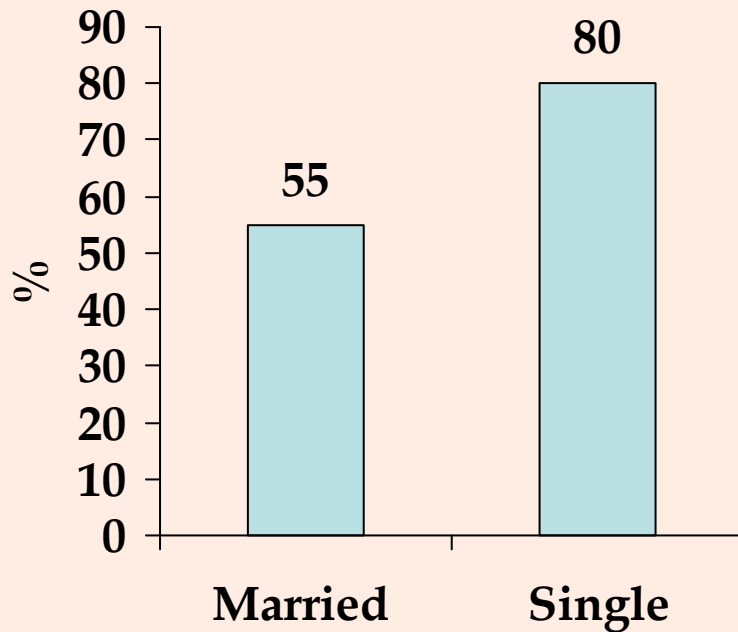


## Number of Vehicles Written



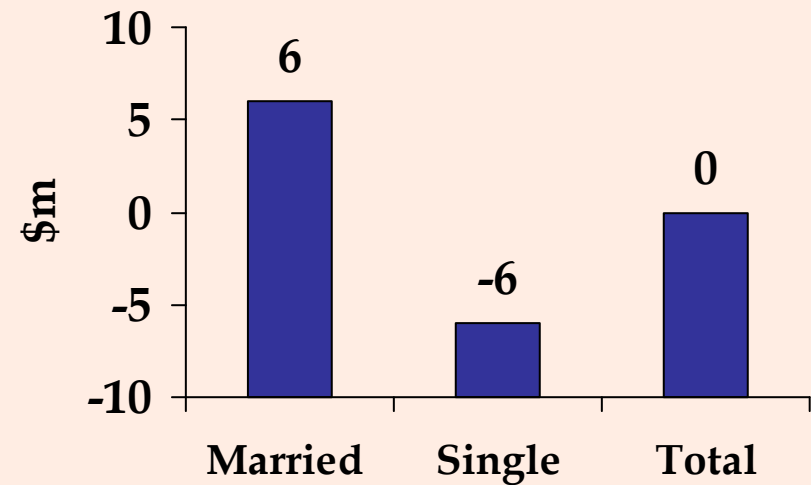
# Tariff Environment – Benefits of Segmentation

## Loss Ratio



## Profit

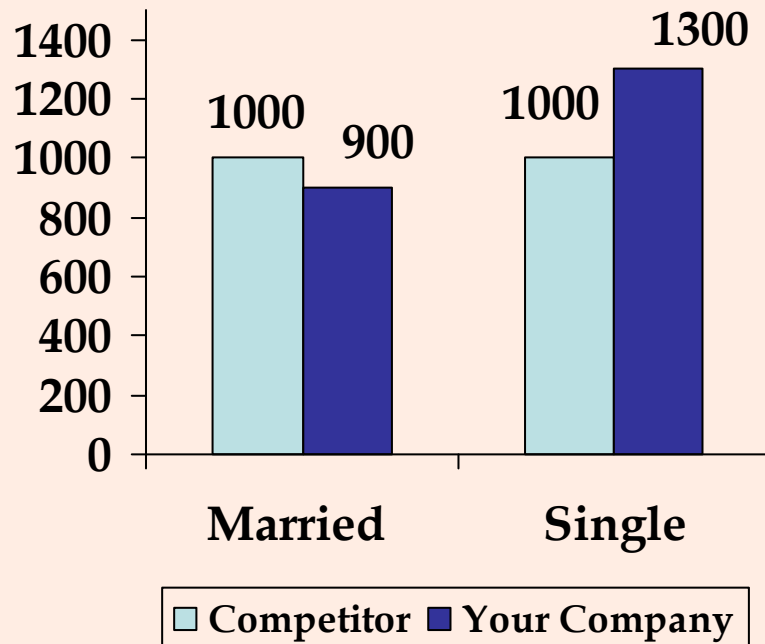
(assume 35% expense and Commissions)



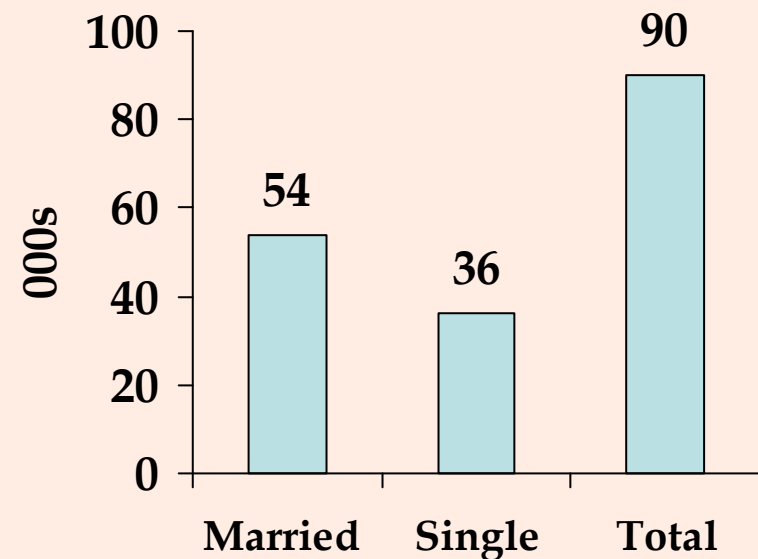
# Competitive Environment:

## Benefits of Pricing & Segmentation

### Premium per policy



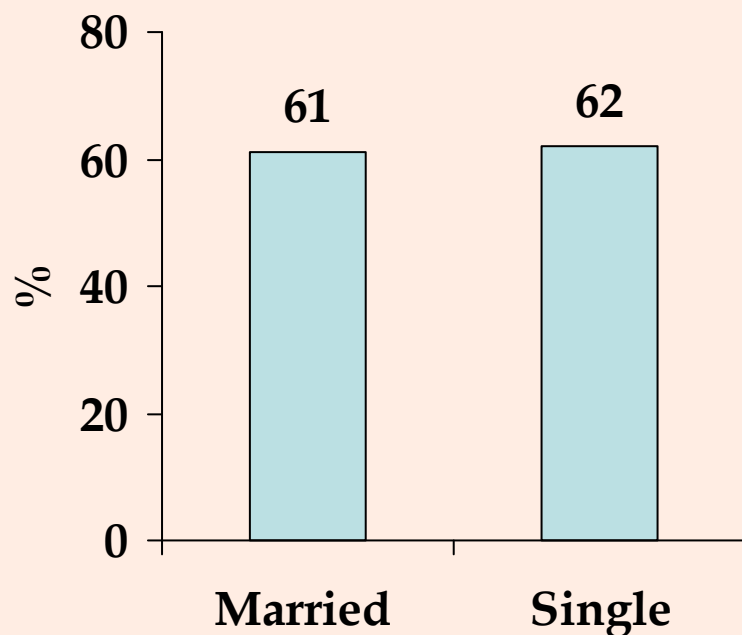
### Number of Vehicles Written





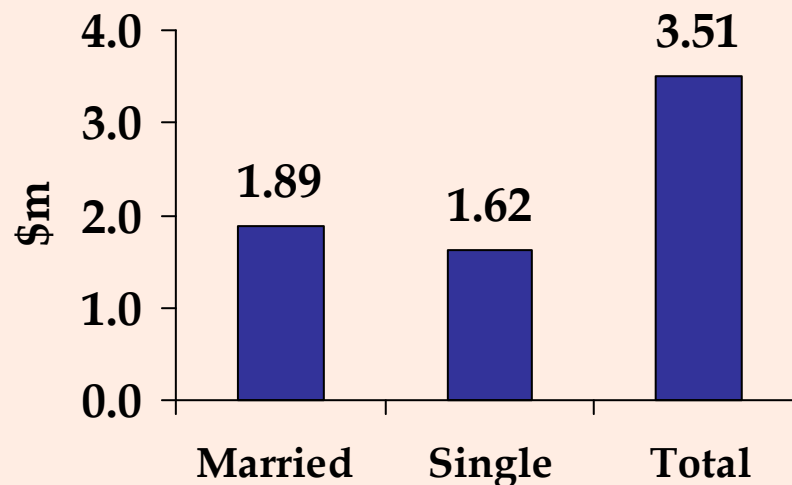
# Competitive Environment: Benefits of Pricing & Segmentation

## Loss Ratio



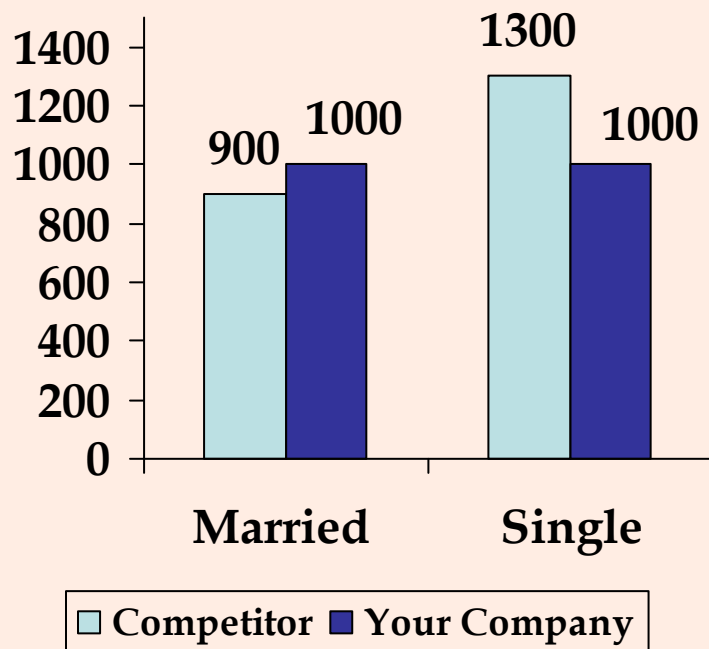
## Profit

(assume 35% expenses and commissions)

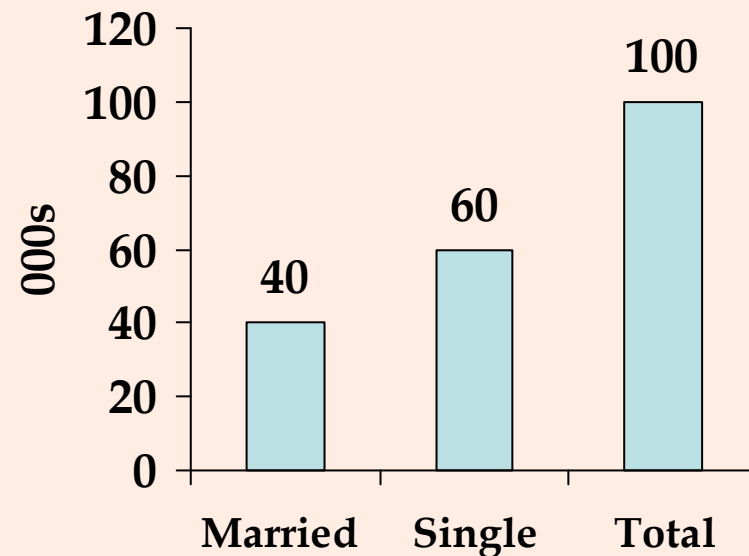


# Anti-Selection- What happens when you are left behind?

## Premium per policy

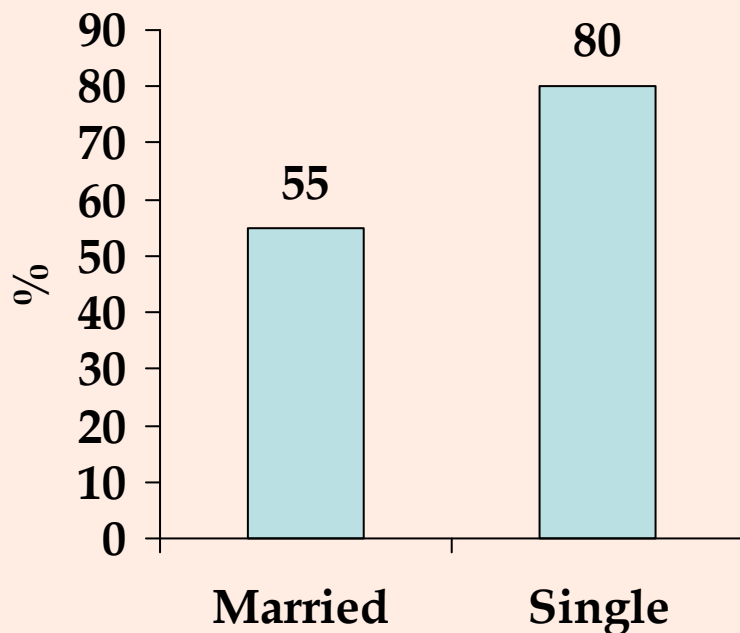


## Number of Vehicles Written



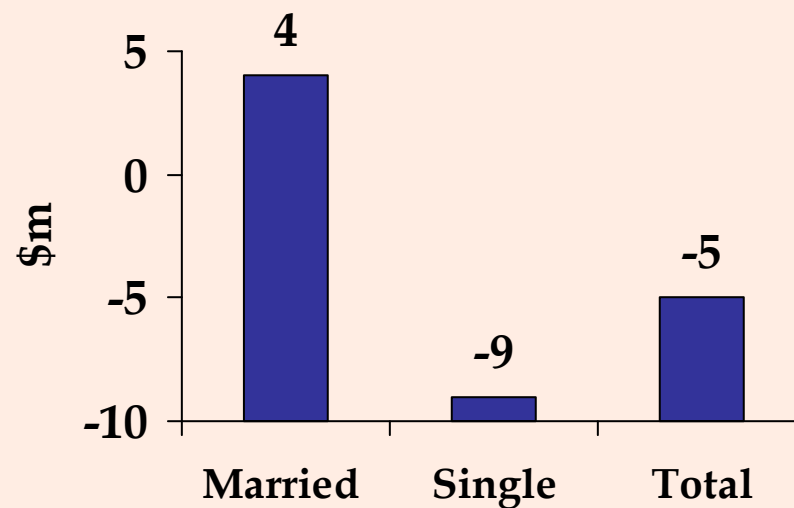
# Anti-Selection- What happens when you are left behind?

## Loss Ratio



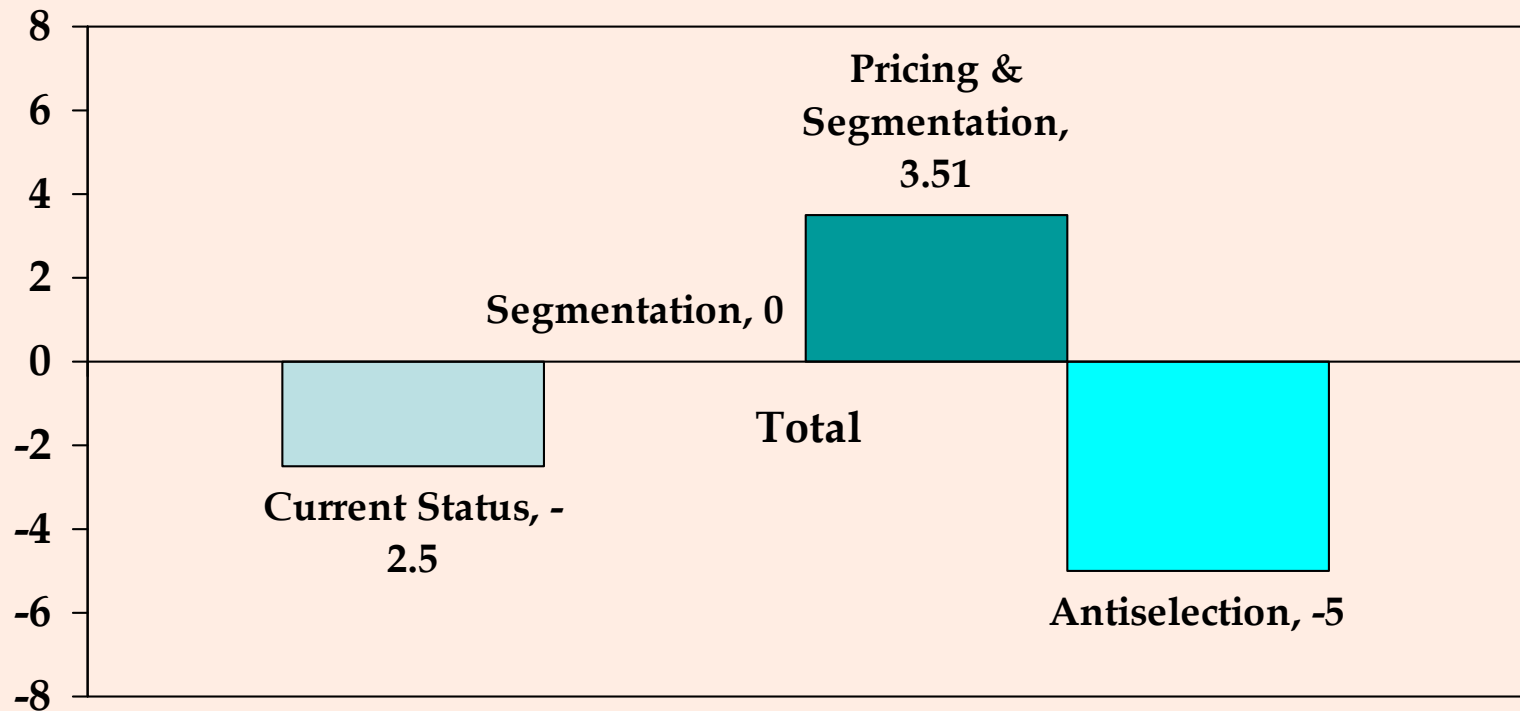
## Profit

(assume 35% expenses and commissions)



# Comparison of Results Across Scenarios

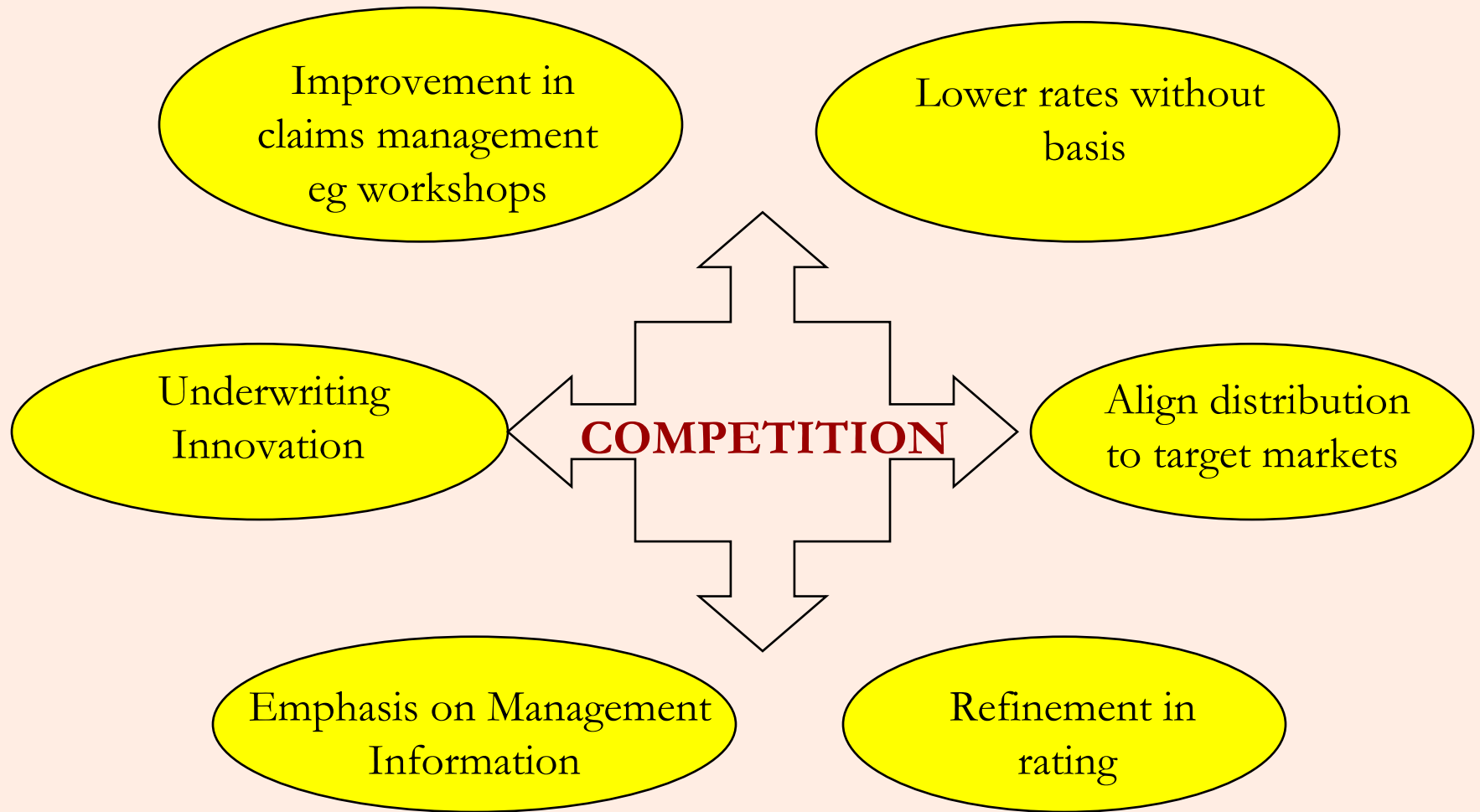
## Underwriting Profit (\$m)



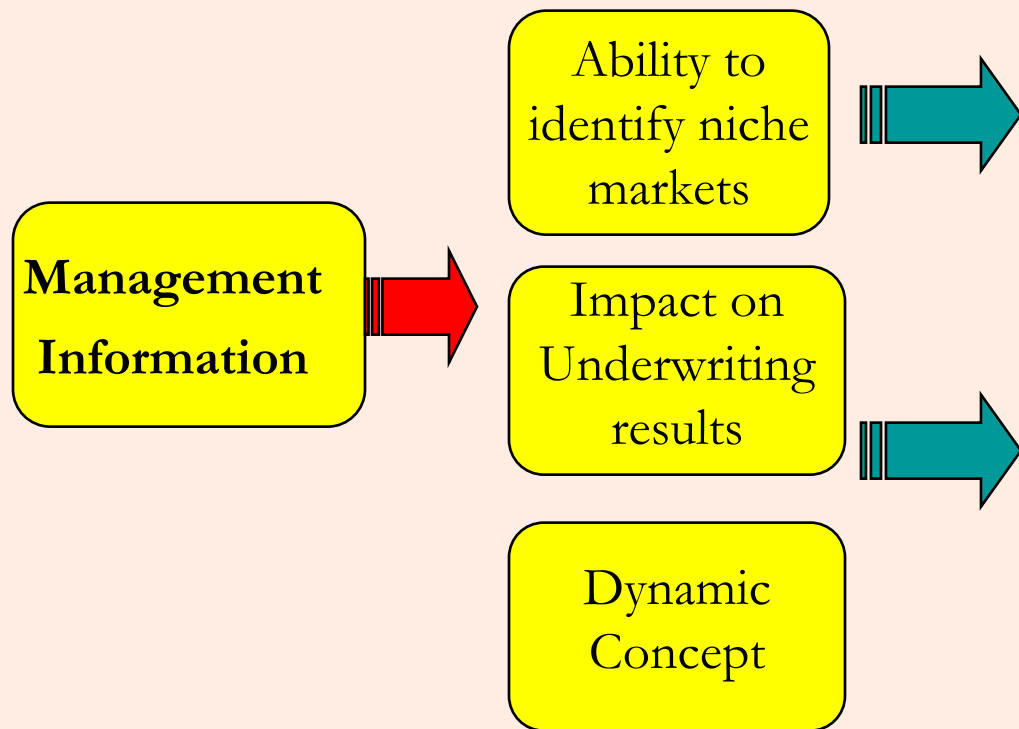
# Impact of Competition

## Strategic Response

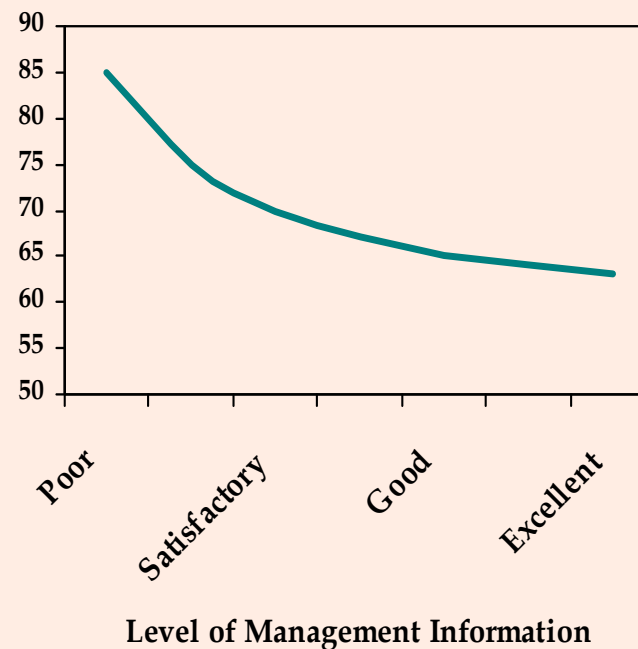
# Impact of Competition



# Competition and Management Information

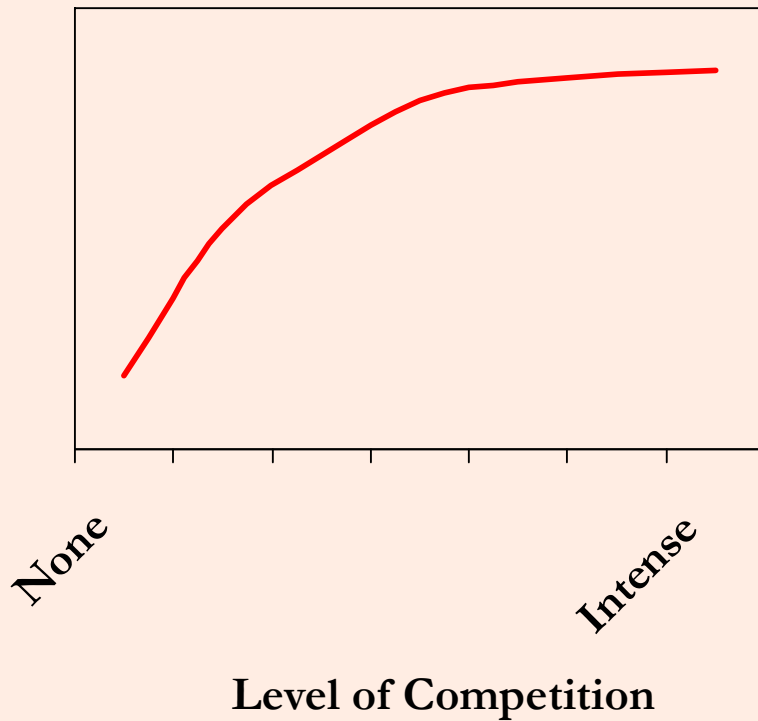


Loss Ratios & Management Info



# Competition and Underwriting

## Level of Sophistication in Underwriting



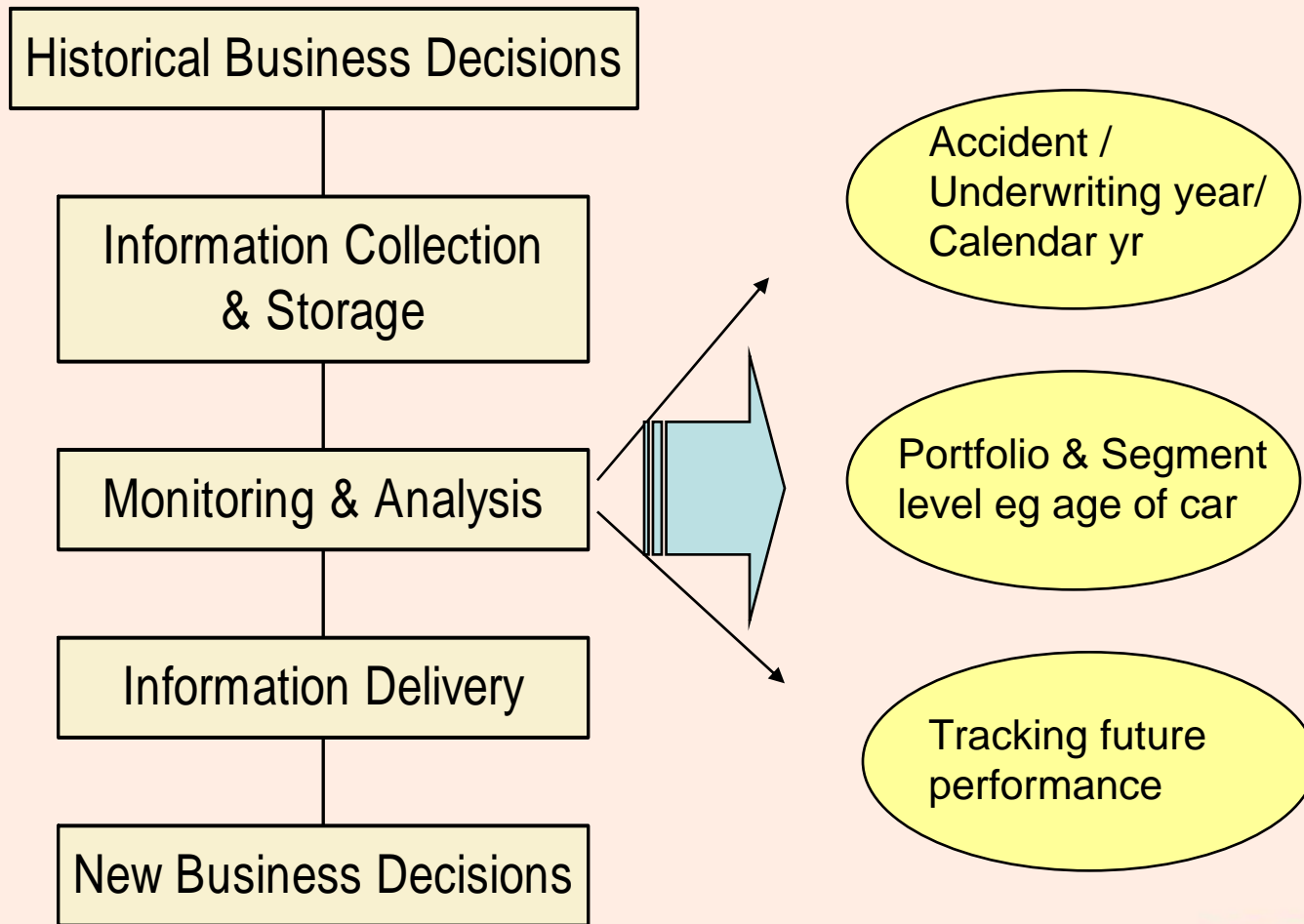
- Sophistication in Underwriting Analysis
- Refinement in rating



# Business Intelligence for General Insurance

# Learning Organisation –

## Information Cycle for Underwriting Decisions



# One Step Further – Tracking “Future Performance”?

- Current performance reports reflect historical business decisions
- Can we develop an indicator of expected future profitability of the business for personal lines business?
- QOB indicator measures current rates against technical rates
- Strong relationship between QOB indicator and future profitability
- Early identification of the business performance
- Effective way to target profitable segments/ avoid value destroyers

# Food for Thought

# Food for Thought

- Is market segmentation a practice in your organisation?
- Which market segments are profitable within your organisation?
- To what extent is distribution aligned to target profitable segments?
- How does your current management information facilitate the above process?
- As an industry, where are we on the underwriting spectrum?
- What regulatory changes are needed to encourage greater underwriting innovation?

# Final Words from Mature Insurance Markets

# Post Magazine Articles

- “trend towards segmentation.....discounts to the good risks are available..”
- “as underwriters compete for favourable risks, there will be a greater push to find HIDDEN niches...”
- “There was a short time when pricing gave competitive advantage....now they are really tools of the trade and everybody is using them”
- “... market for insurance is finite, growth is a matter of extracting maximum profits from existing portfolios..”

**End of Presentation**