



Medical Scheme Solvency Requirements

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- What are the origins of the current solvency statutory requirements?
- How do these requirements compare to other models being used locally and internationally?
- Do the current solvency requirements
 - Achieve the aim of ensuring financial stability?
 - Impact on affordability?

The background of the slide is a blurred financial spreadsheet with columns of numbers and text. Two white dice are placed on the spreadsheet. One die is in the foreground, slightly out of focus, showing a 1 and a 2. The other die is in the background, more in focus, showing a 3 and a 4. The word "Risk" is written in large, bold, black letters across the middle of the image.

“Risk”

Quantification of risk based on...
Expected variability of future experience

“Uncertainty is the only certainty there is, and knowing how to live with insecurity is the only security”
– John Allen Paulos



Confusion of “risk” with “demographics”
(e.g. “Risk Equalisation Fund”)

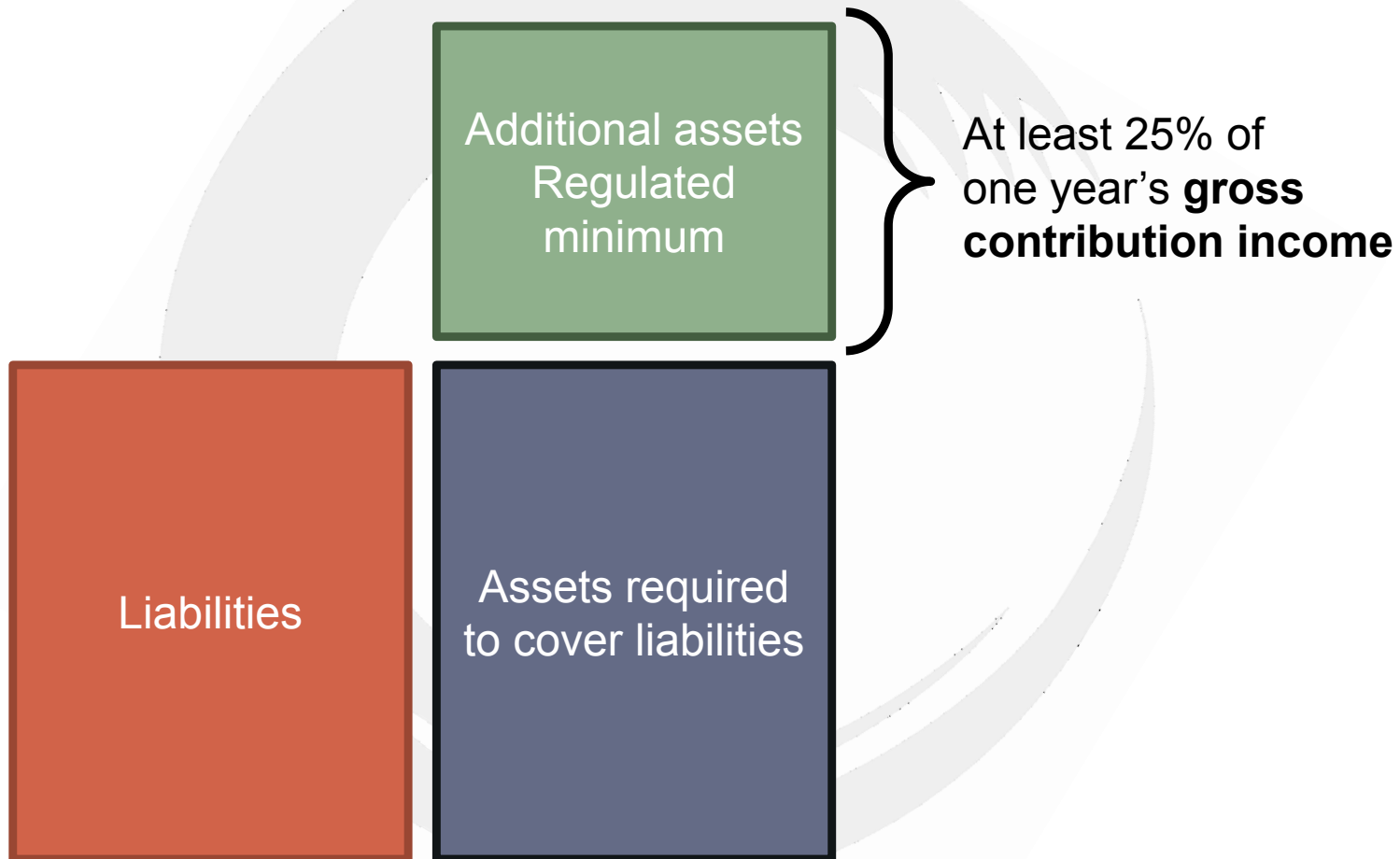
A given demographic profile

VS

A change in the demographic profile

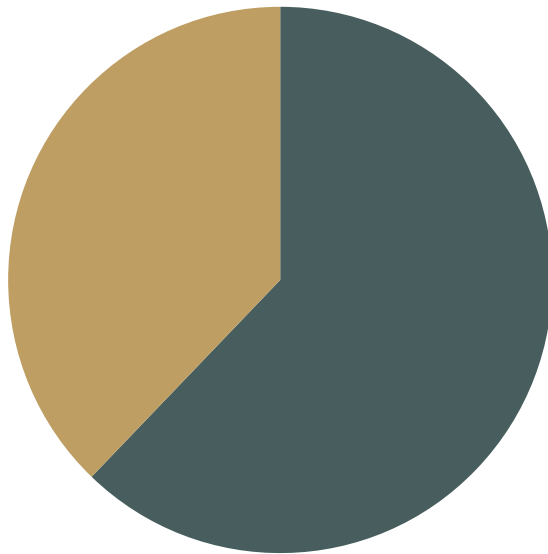
- High hospital case
- Accumulation of high claims (e.g. epidemic)
- Unpredictable volatility in small schemes

WHY ARE SOLVENCY REQUIREMENTS NECESSARY?



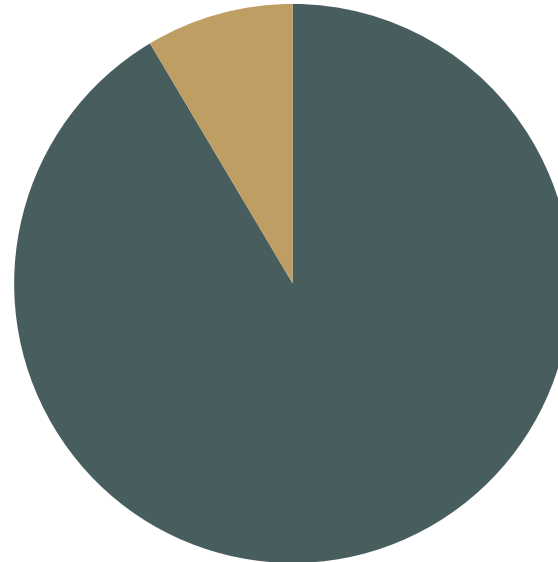
- Several anecdotal references
- 25% = three months
- Time required for claims to be processed (IBNR)

Open schemes



14 out of 37
non-compliant

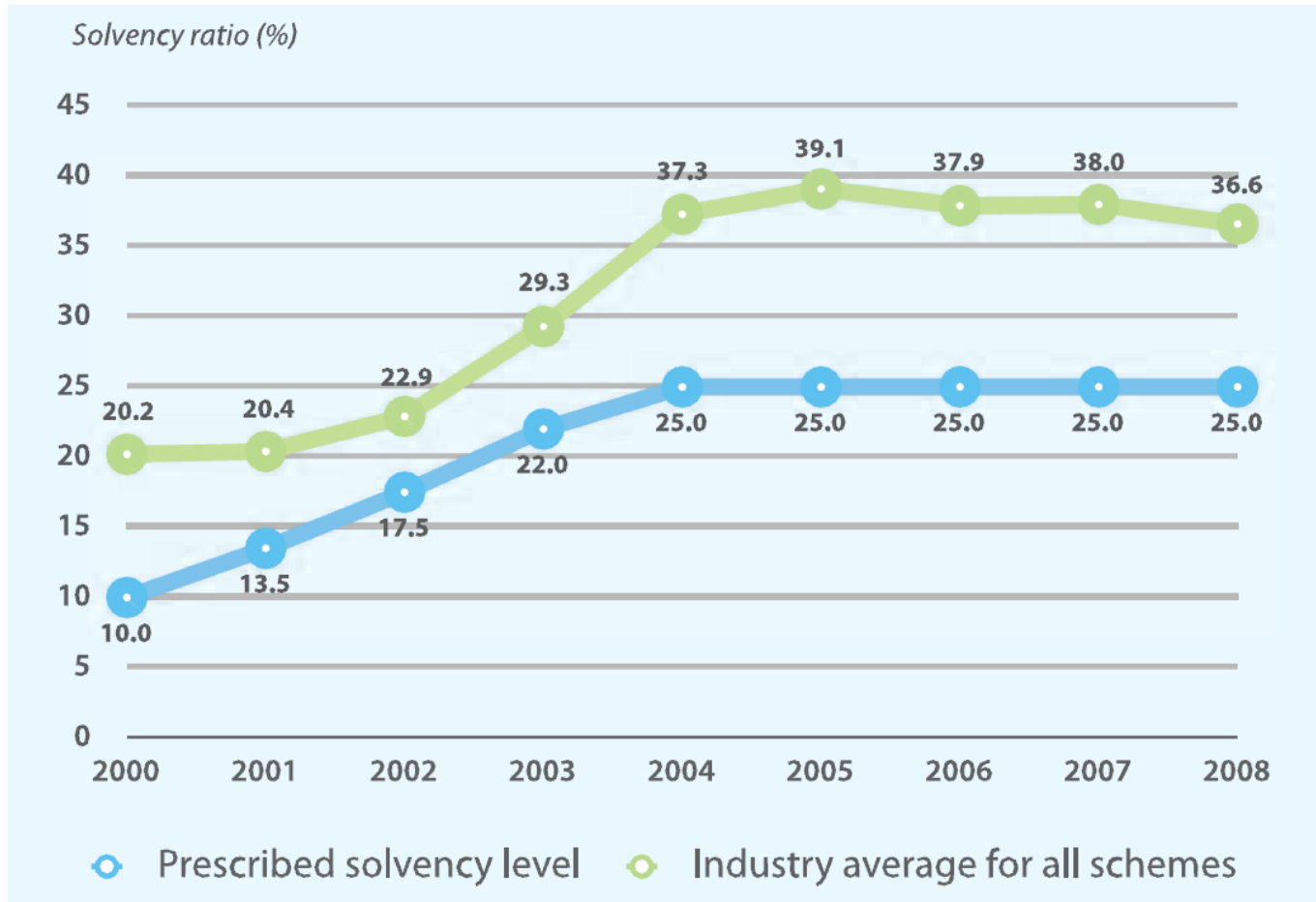
Restricted schemes



7 out of 82
non-compliant

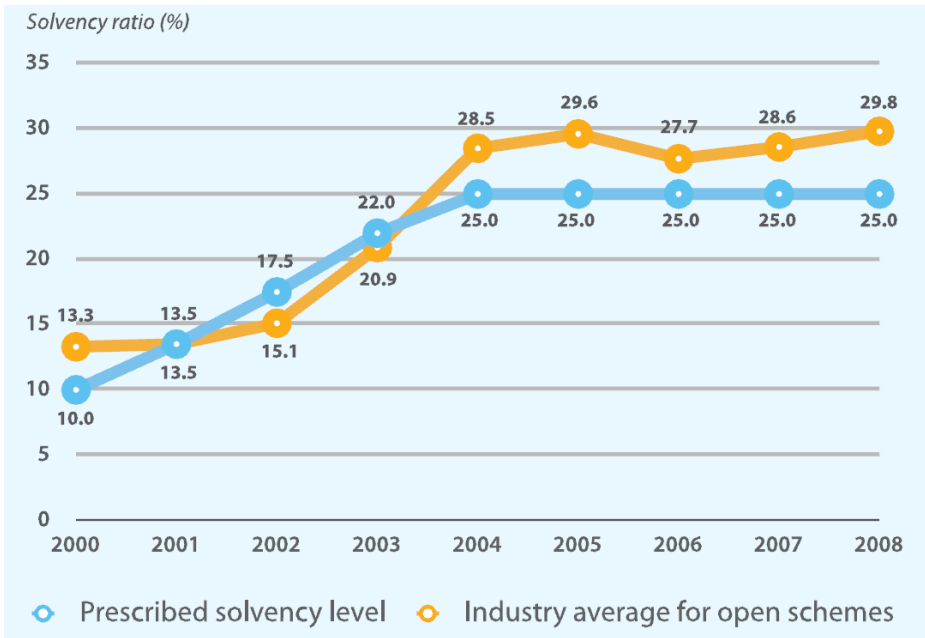
■ Above 25%
■ Below 25%

SCHEME PERFORMANCE

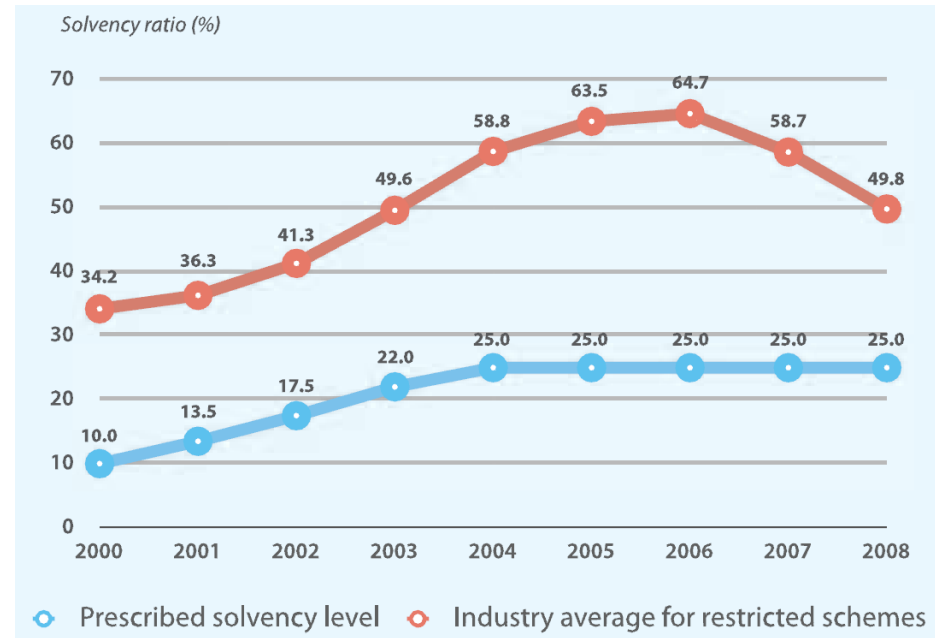


Source: CMS Annual Report 2008

Open Schemes



Restricted Schemes



- Point-in-time test only
- Regulators historically comfortable with simple “above or below” evaluations
- Recently emphasis on being able to maintain solvency into the future

Locally – General Insurance (Financial Services Board)

- Current requirements
- Exploration of risk-based approach to Financial Condition Reporting (FCR), in line with international developments

Current requirements for general insurers in South Africa

- Prescribed reserves for Unearned Premium and IBNR (not applicable to medical schemes)
- Solvency required: 15% of Net Written Premium
- Contingency reserve: 10% of Net Written Premium
- **Total margin: 25% of Net Written Premium***
- NWP = Net of (approved) reinsurance premiums

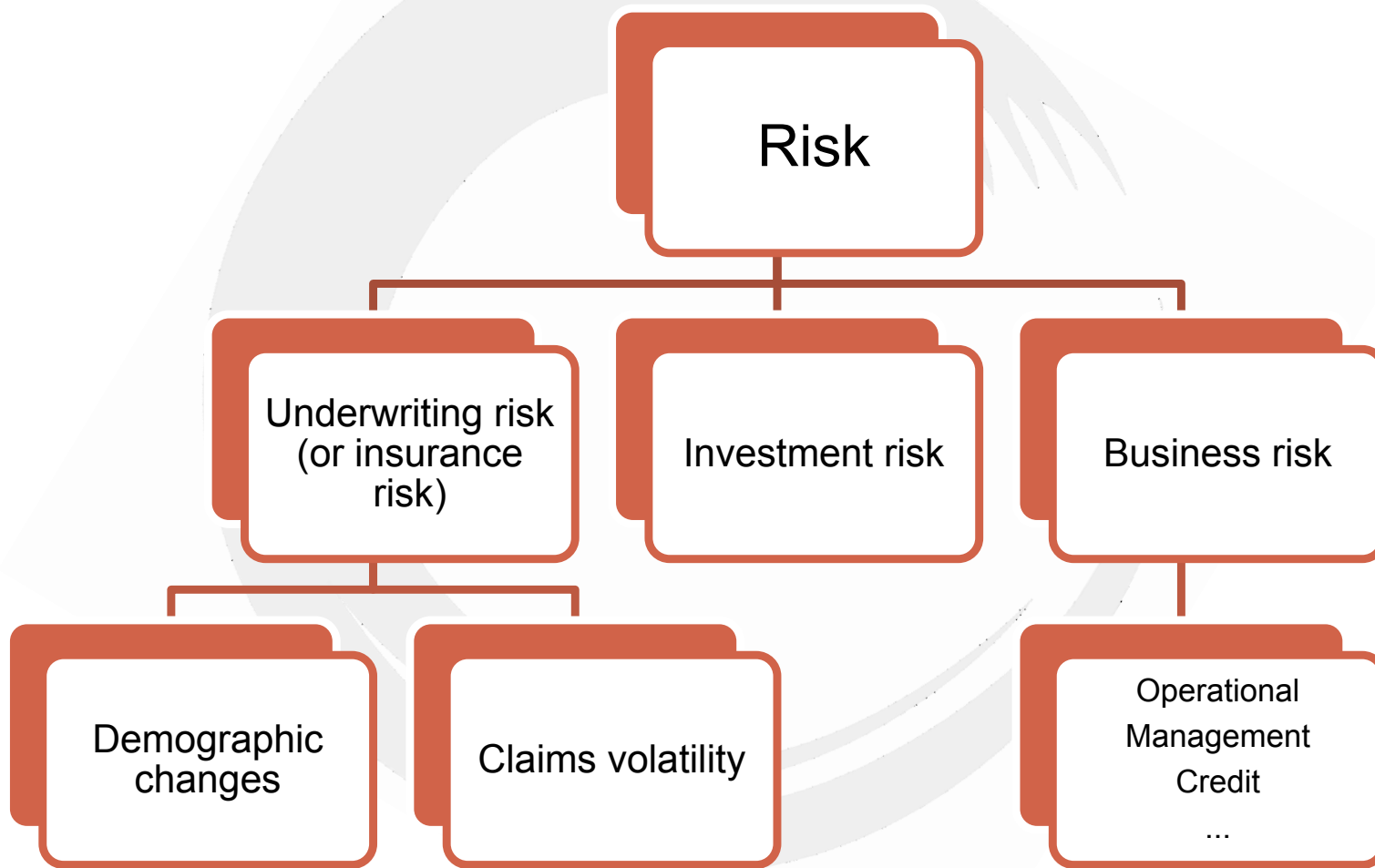
Current requirements for general insurers in South Africa

Similar on face value, but two important differences

- MSA contributions not included
- Allowance for reinsurance

- Internationally: Solvency II framework
- Principle-based rather than rule-based approach
- Locally: FSB exploring Risk Based Capital (RBC)
- Model the unique properties of each organisation
- Probability of ruin at 99.5% level of confidence
- Demonstrate that these models are actively used in the day-to-day management of the scheme

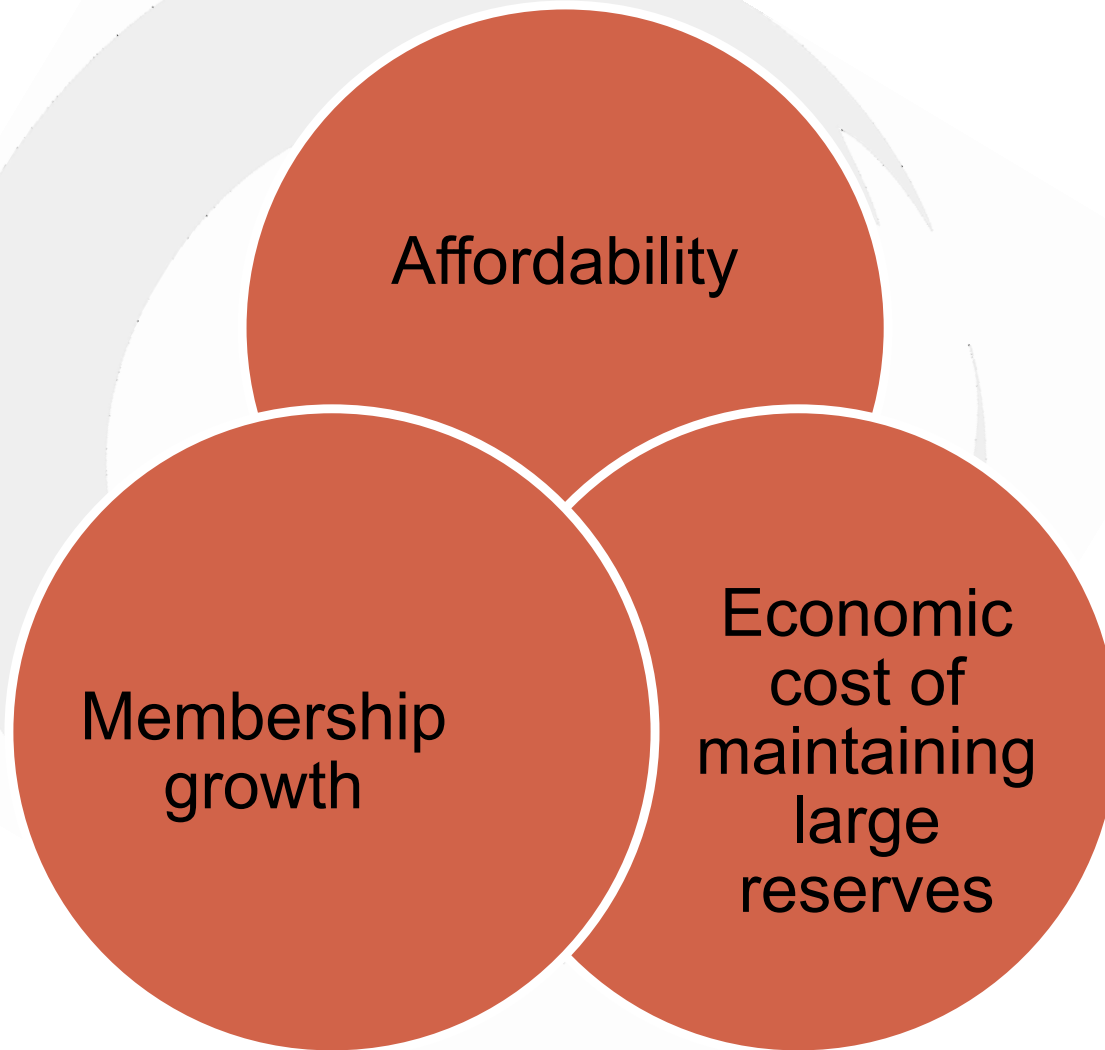
RISK-BASED APPROACH



“Beware of geeks bearing formulas”
– Warren Buffet

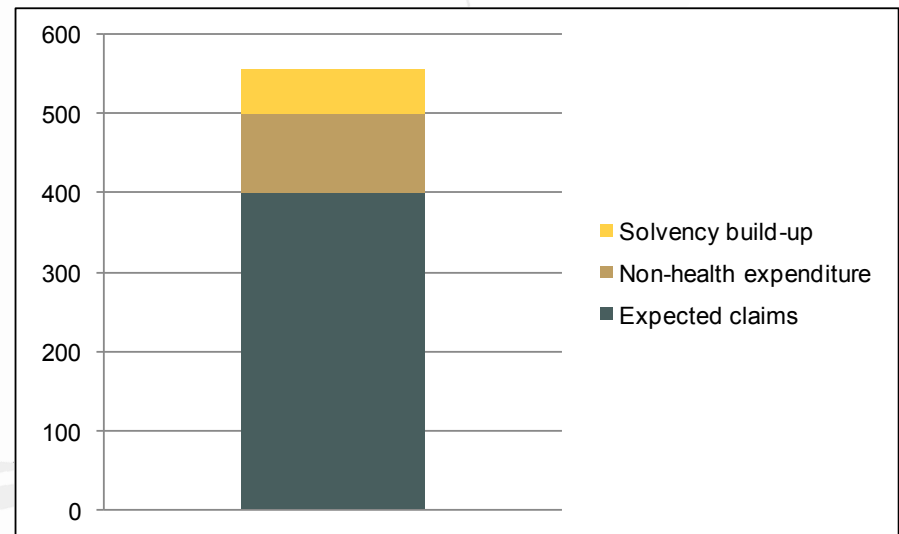


- Explored by several actuarial studies
- Recent paper by Deloitte (2009) suggested
 - Lower solvency requirements for “large” schemes (12.5% to 15%)
 - Solvency requirements closer to 25% for medium and small schemes
 - Some schemes could require more than 25%



- Not an issue for established schemes with solvency above 25%
- Investment income
- Growing or new schemes
- Consider a low-income example

	Rand
Expected claims	400
Non-health expenditure	100
Total risk premium	500
Solvency build-up (10%)	56
Total premium	556



Regulation 29 allows for solvency to be built up over four years. Requirement after first year is 10%.

- Exacerbated by circular logic of linking requirements to contributions
- Higher contributions → higher solvency requirements

	<i>Year 1</i>
Accumulated funds	50,000,000
Contribution income	310,000,000
Claims	294,000,000
Non-health expenditure	30,000,000
Net undewriting result	-14,000,000
Investment income	3,500,000
Net result	-10,500,000
Accumulated funds	39,500,000
Solvency margin	12.7%
Required solvency	77,500,000
Shortfall	38,000,000

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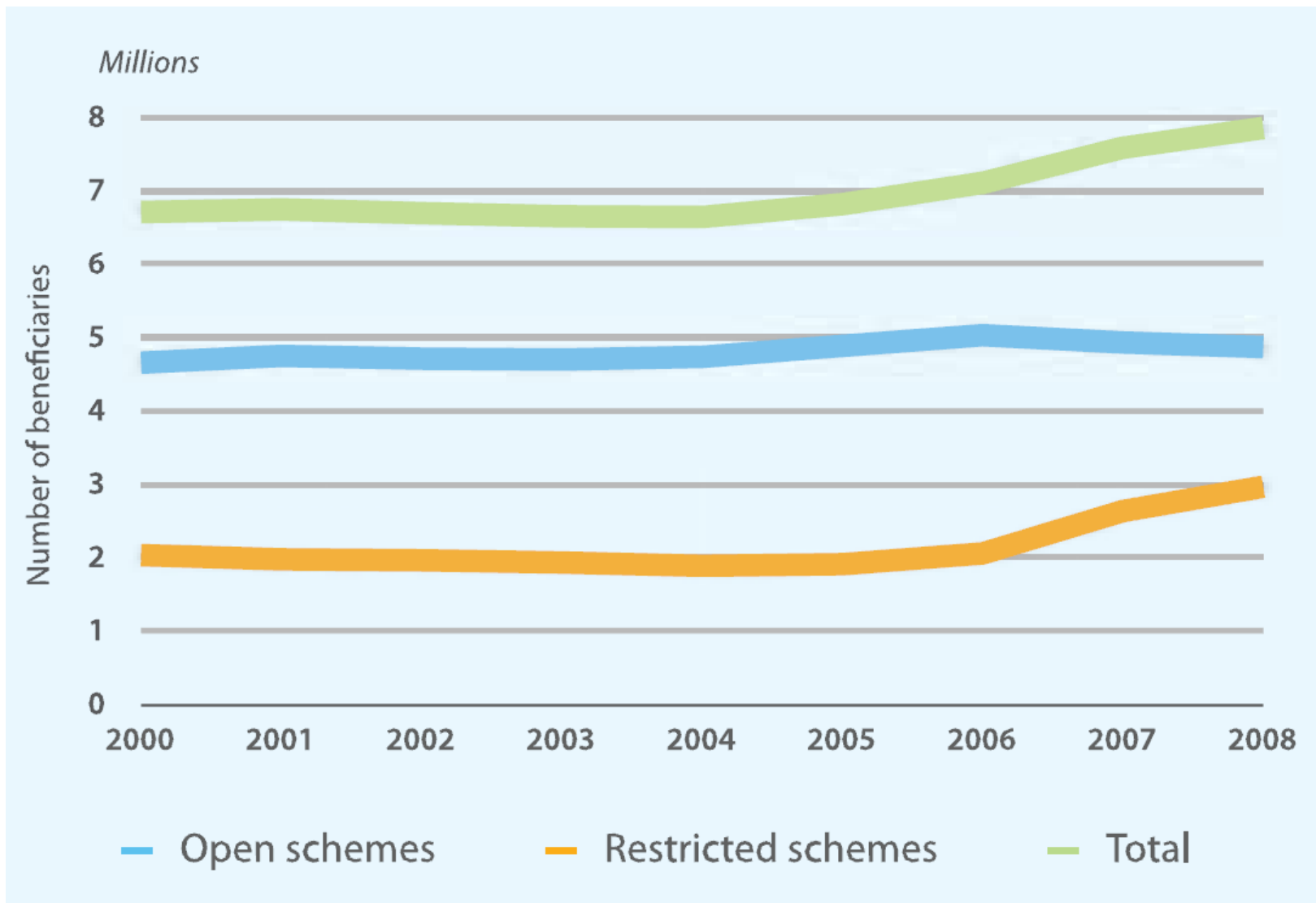
	Year 1	Year 2			
		7% increase	10% increase	12% increase	15% increase
Accumulated funds	50,000,000	39,500,000	39,500,000	39,500,000	39,500,000
Contribution income	310,000,000	331,700,000	341,000,000	347,200,000	356,500,000
Claims	294,000,000	314,580,000	314,580,000	314,580,000	314,580,000
Non-health expenditure	30,000,000	32,100,000	32,100,000	32,100,000	32,100,000
Net undewriting result	-14,000,000	-14,980,000	-5,680,000	520,000	9,820,000
Investment income	3,500,000	2,765,000	2,765,000	2,765,000	2,765,000
Net result	-10,500,000	-12,215,000	-2,915,000	3,285,000	12,585,000
Accumulated funds	39,500,000	27,285,000	36,585,000	42,785,000	52,085,000
Solvency margin	12.7%	8.2%	10.7%	12.3%	14.6%
Required solvency	77,500,000	82,925,000	85,250,000	86,800,000	89,125,000
Shortfall	38,000,000	55,640,000	48,665,000	44,015,000	37,040,000

Assumed inflation of 7% p.a.

MATHEMATICAL EXTREME – LOCKED-IN AT 100%

	<i>Year 1</i>	<i>10% increase</i>	<i>25% increase</i>	<i>100% increase</i>	<i>90% decrease</i>
Accumulated funds	300,000,000	329,998,506	329,998,506	329,998,506	329,998,506
Contribution income	329,998,506	362,998,357	412,498,133	659,997,012	32,999,851
Claims	294,000,000	323,400,000	323,400,000	323,400,000	323,400,000
Non-health expenditure	30,000,000	33,000,000	33,000,000	33,000,000	33,000,000
Net undewriting result	5,998,506	6,598,357	56,098,133	303,597,012	-323,400,149
Investment income	24,000,000	26,399,880	26,399,880	26,399,880	26,399,880
Net result	29,998,506	32,998,237	82,498,013	329,996,893	-297,000,269
Accumulated funds	329,998,506	362,996,744	412,496,520	659,995,399	32,998,237
Required solvency	100%	100%	100%	100%	100%

MEMBERSHIP GROWTH



Source: CMS Annual Report 2008

- Solvency strain of new members
- “Shrinking to greatness”
- Growing schemes are less competitive
- Shrinking schemes are more competitive
- Trustees struggle to marry solvency requirements with requirement to grow membership.
Which is in the best interest of members?



- General insurance industry approach
- Reinsurance
- Reinsured business excluded from solvency calculation
- Rely on reinsurer balance sheet, fully compliant with solvency requirements from day one

- Two largest schemes in South Africa
- 25% solvency requirements translate into
Approximately **R8 billion** per scheme in today's money terms
- Invested in line with requirements of Annexure B of Regulation 30
- “Dead money”, invested close to cash
- Could this money be used better?

Solvency requirements...

- Have a real impact on how medical schemes presently behave
- Inhibits a scheme's ability to expand into or enter the low-income market
- Restricts medical scheme growth, especially because of the non-allowance for reinsurance
- Inclusion of MSA contributions in solvency calculation does not make sense
- Introduces a systemic economic cost in South Africa through large amounts of reserves in low-risk portfolios
- Risk-based approach being explored internationally and locally (FSB)
- Could pave the way for better, more affordable coverage and better overall risk management in our industry