

Professional Indemnity Forum 2009

An Actuary's Analysis

7 July 2009

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Section one

Profitability – Stability and Turmoil

Impact of Solvency II

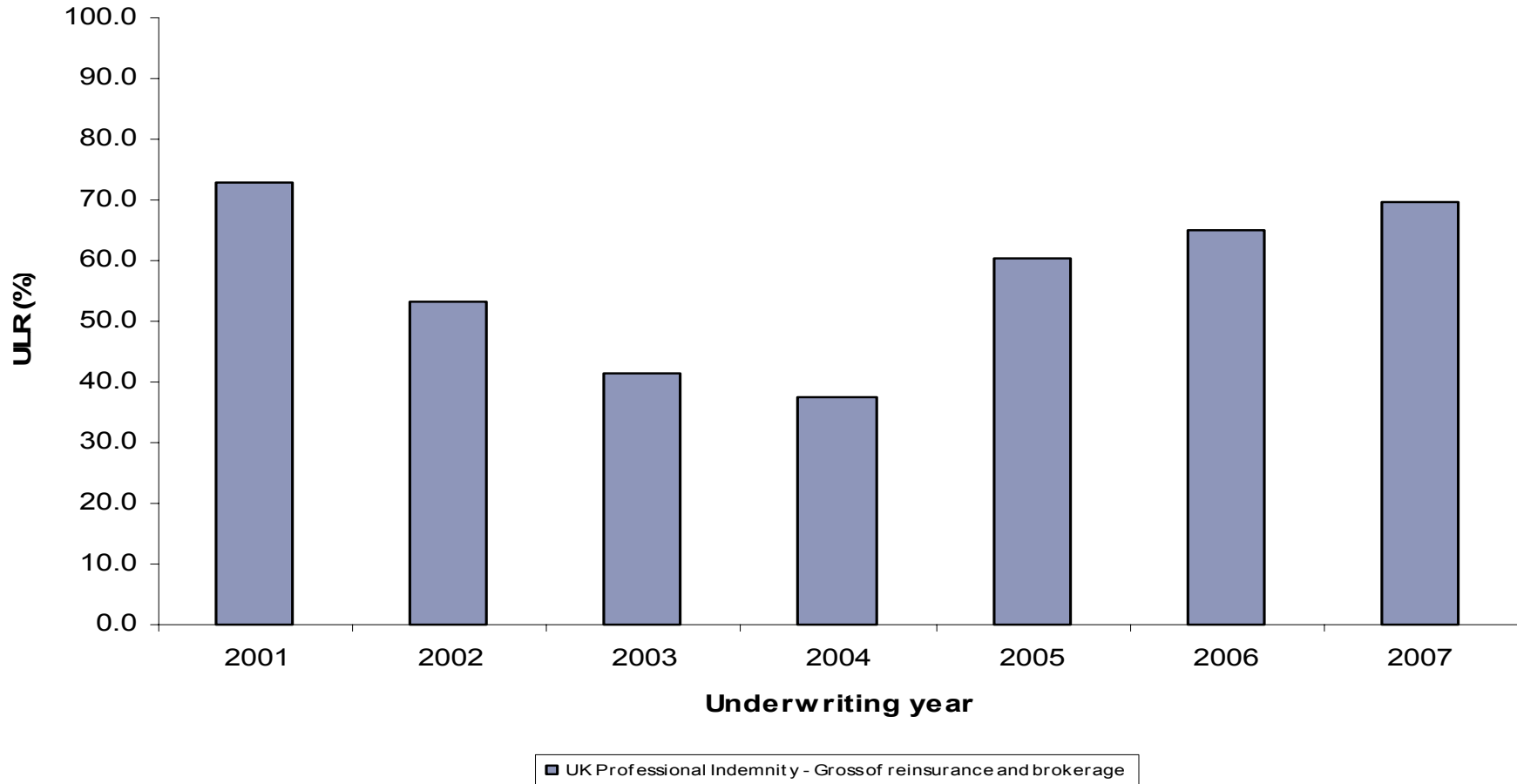
Top Tips – How to get things right

Profitability – Stability and Turmoil



Impact of underwriting cycle on profitability

Market pricing cycle clearly impacting UK Professional Indemnity insurance



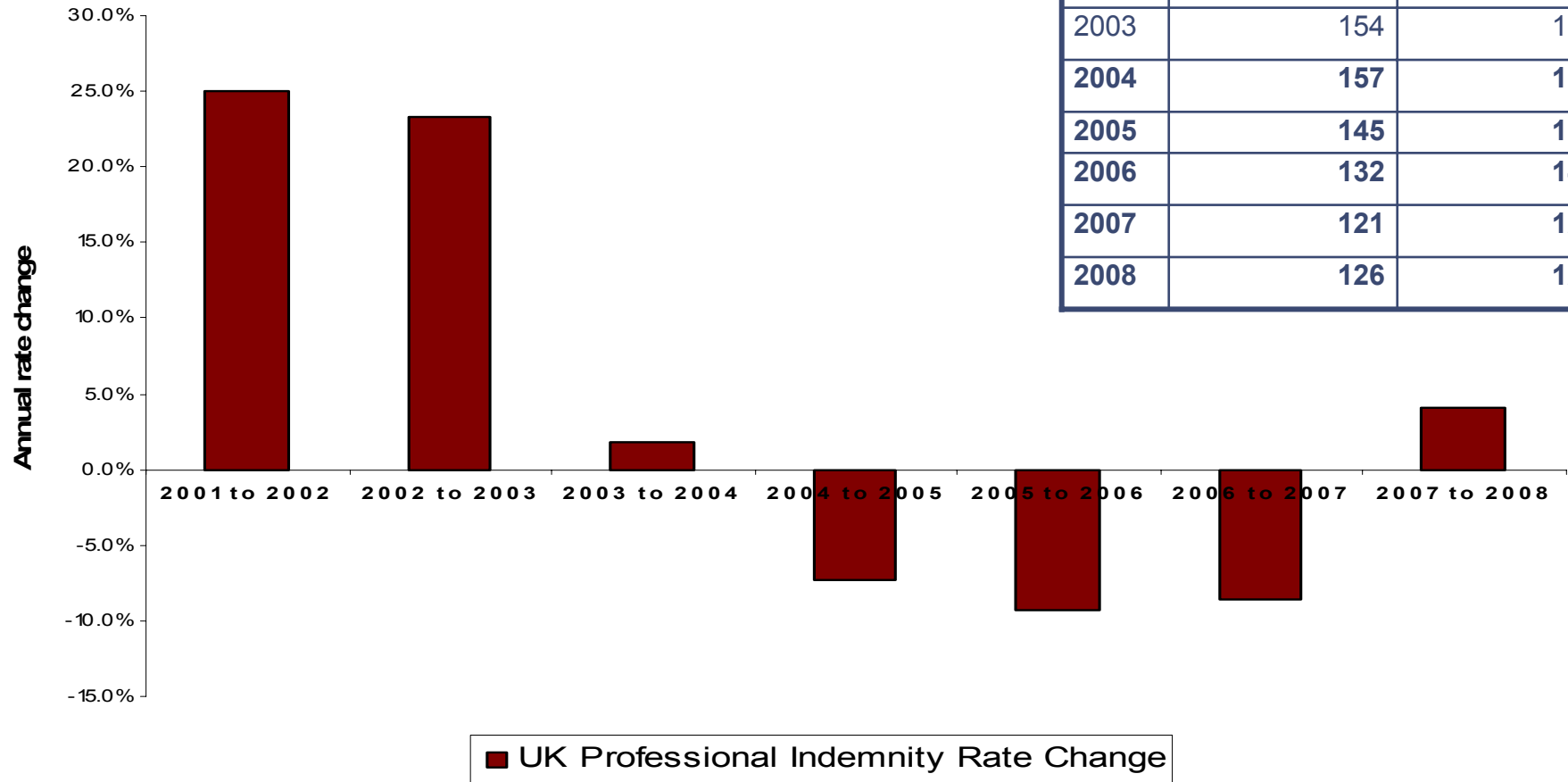
Source: 2009 FSA return data

Profitability – Stability and Turmoil

Observed rate change

Prices have dropped approximately 20% over 2004 - 2008

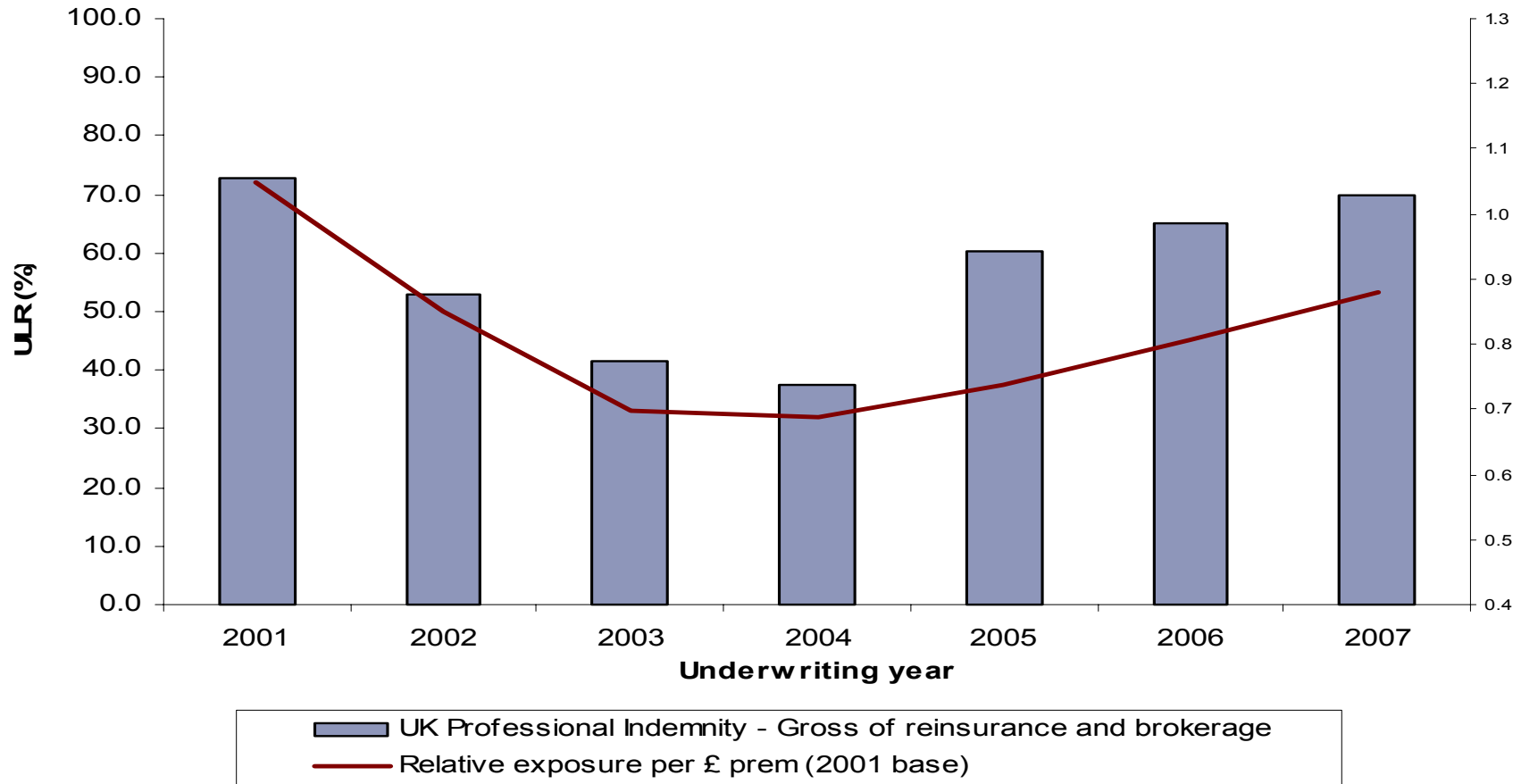
UWY	Price Index (exc inflation)	Price Index (inc inflation)
2001	100	124
2002	125	154
2003	154	184
2004	157	182
2005	145	164
2006	132	144
2007	121	126
2008	126	125



Source: PwC estimates

Impact of underwriting cycle and observed rate change

There is a clear connection between observed ULR's and rate changes



Source: ULR's - 2009 FSA return data
Relative exposure – PwC estimates

Observed Claims Inflation

Extremely subjective – difficult to assess either prospectively or retrospectively.

An implied claims inflation can be derived considering the following relationship:

$$ULR_{x+1} = ULR_x \times \frac{1 + c_{x \rightarrow x+1}}{1 + r_{x \rightarrow x+1}}$$

$$c_{x \rightarrow x+1} = \left[\frac{ULR_{x+1}}{ULR_x} \times (1 + r_{x \rightarrow x+1}) \right] - 1$$

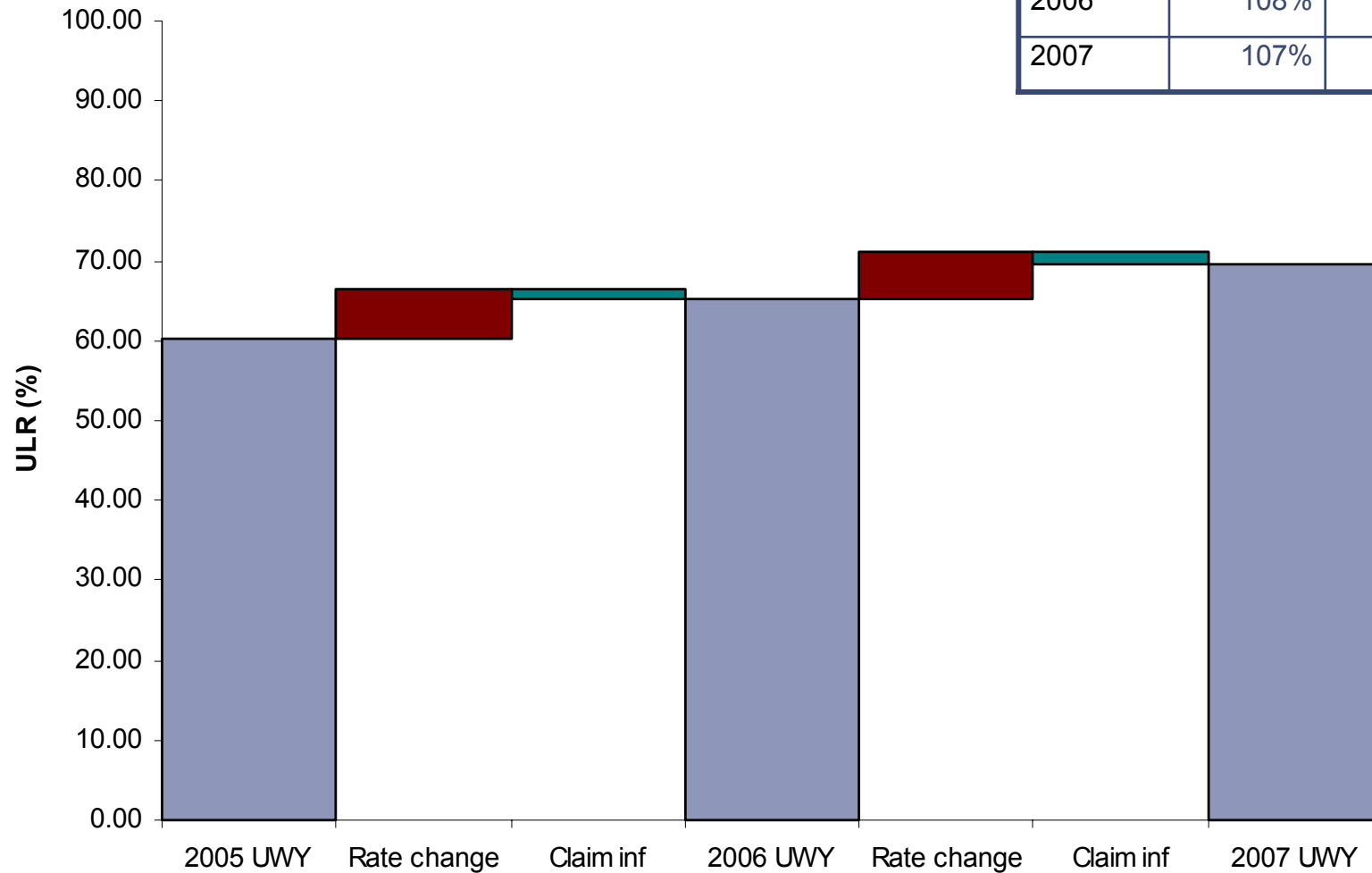
$UWY(x)$	$\frac{ULR_{x+1}}{ULR_x}$	$r_{x \rightarrow x+1}$	$c_{x \rightarrow x+1}$
2006	108%	-9.3%	-2.1%
2007	107%	-8.5%	-2.3%

Reasons for the implied negative claims inflation over 2006 – 2007?

Profitability – Stability and Turmoil

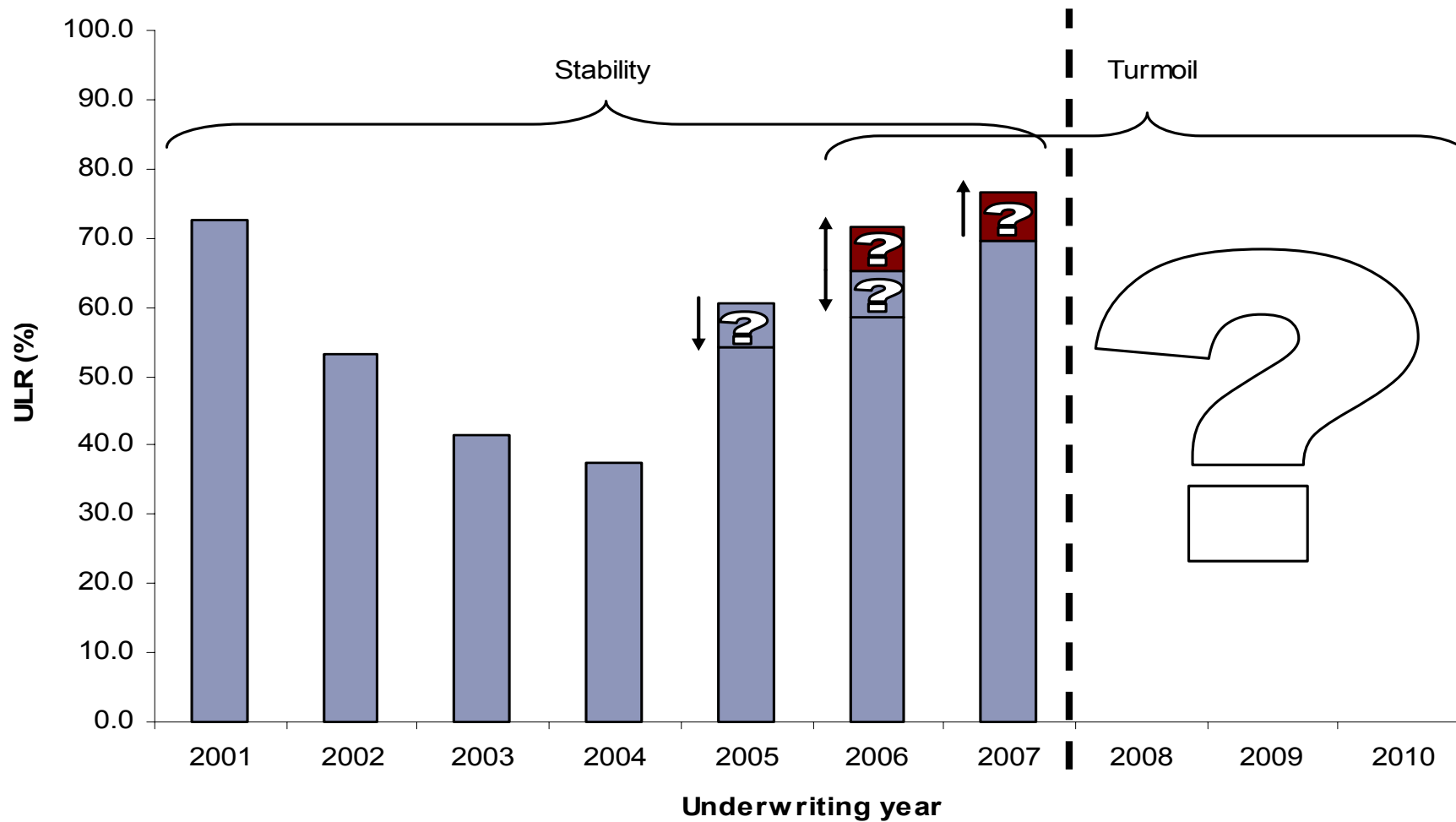
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Impact of recent market turmoil

Potential impact on both future years and historical underwriting years



Profitability – Stability and Turmoil

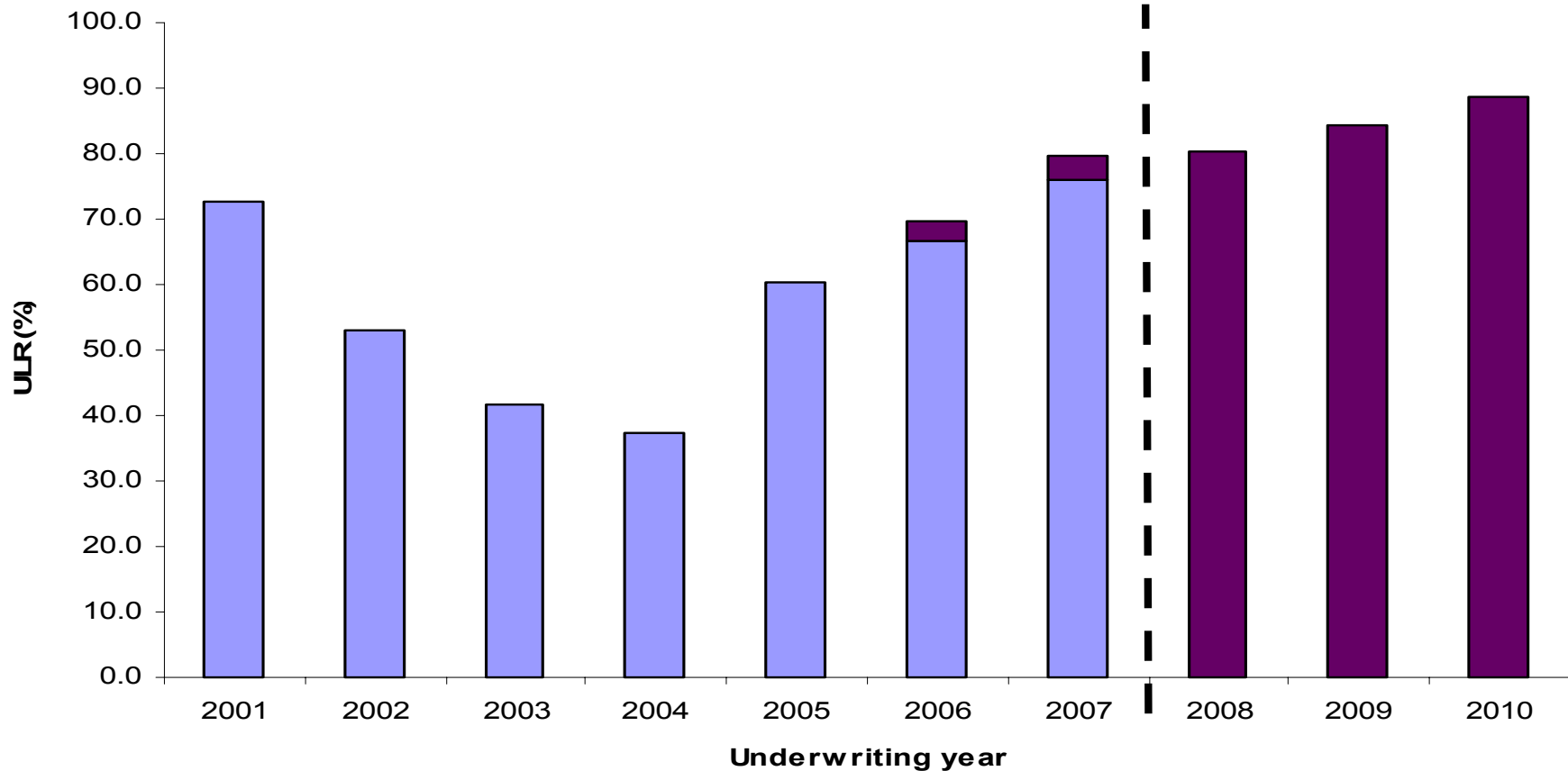
Impact of recent market turmoil - Scenario

Gross ULR's could easily hit 90% by 2010.

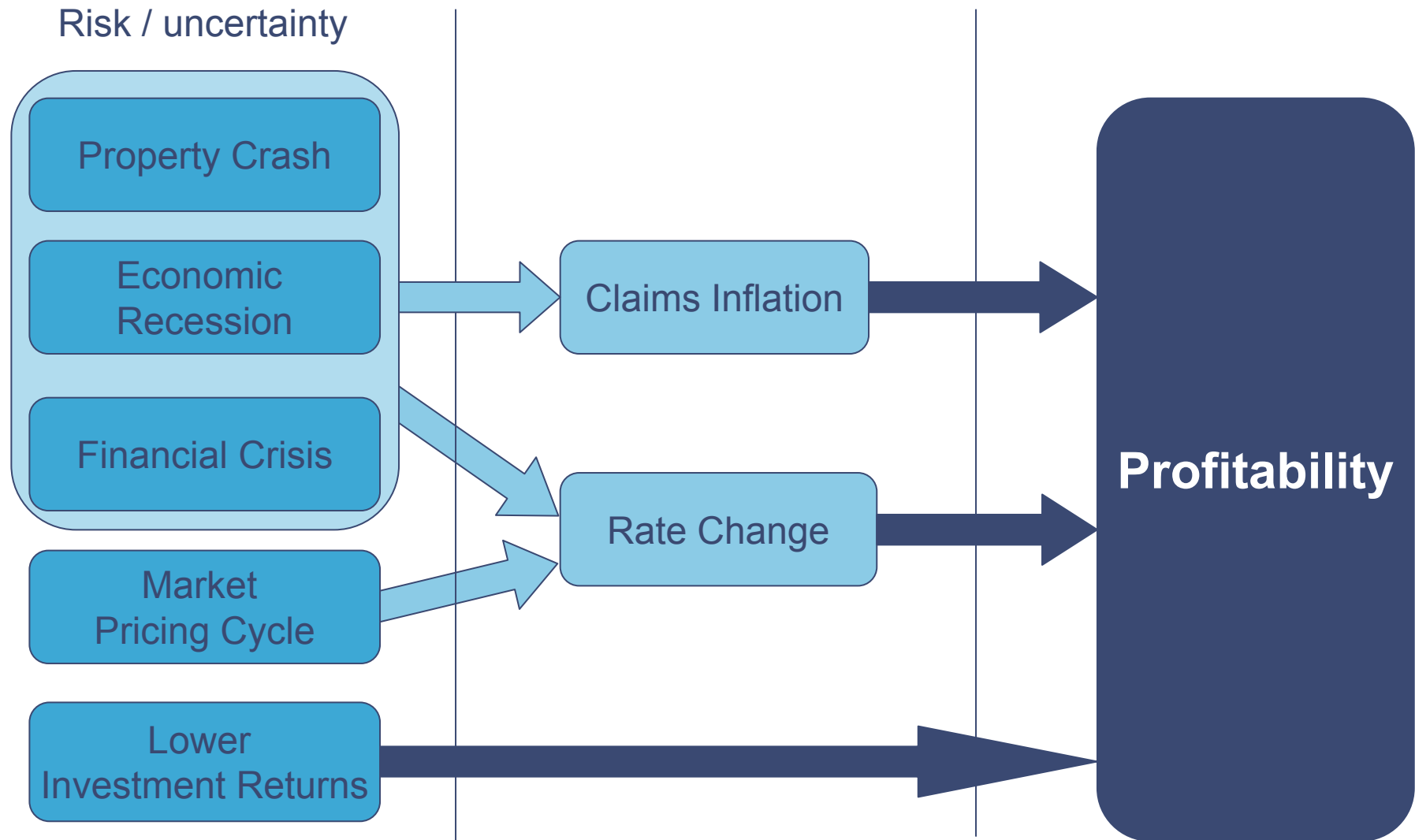
All else being equal

Assumes 2006 – 2010 are 'Non-Event' years



UWY	2006	2007	2008	2009 & 2010
Rate Change	-9.3%	-8.5%	4.1%	0%
Claims inflation	5%	5%	5%	5%



Key risks and uncertainties - Identification



Key risks and uncertainties – Measurement and management

Risk / uncertainty	Measurement	Management
Property Crash		
Economic Recession		
Financial Crisis		
Market Pricing Cycle		
Lower Investment Returns		

Section two

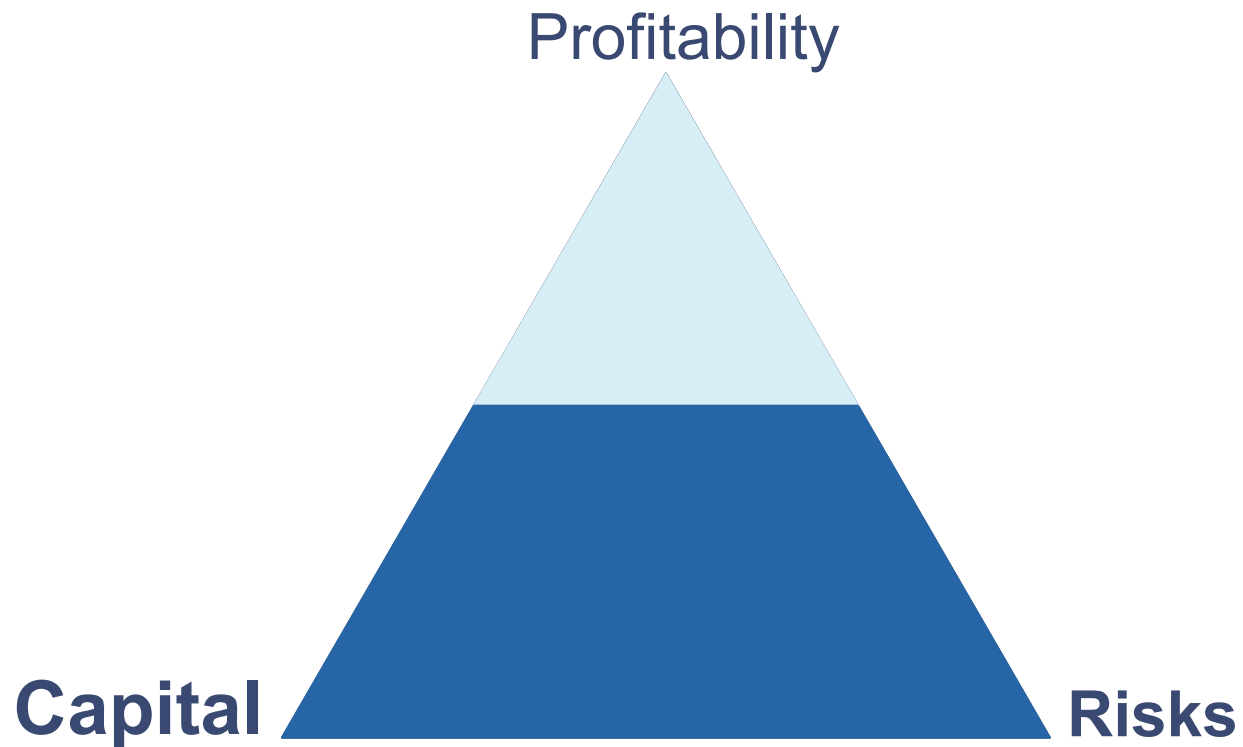
Profitability – Stability and Turmoil

Impact of Solvency II

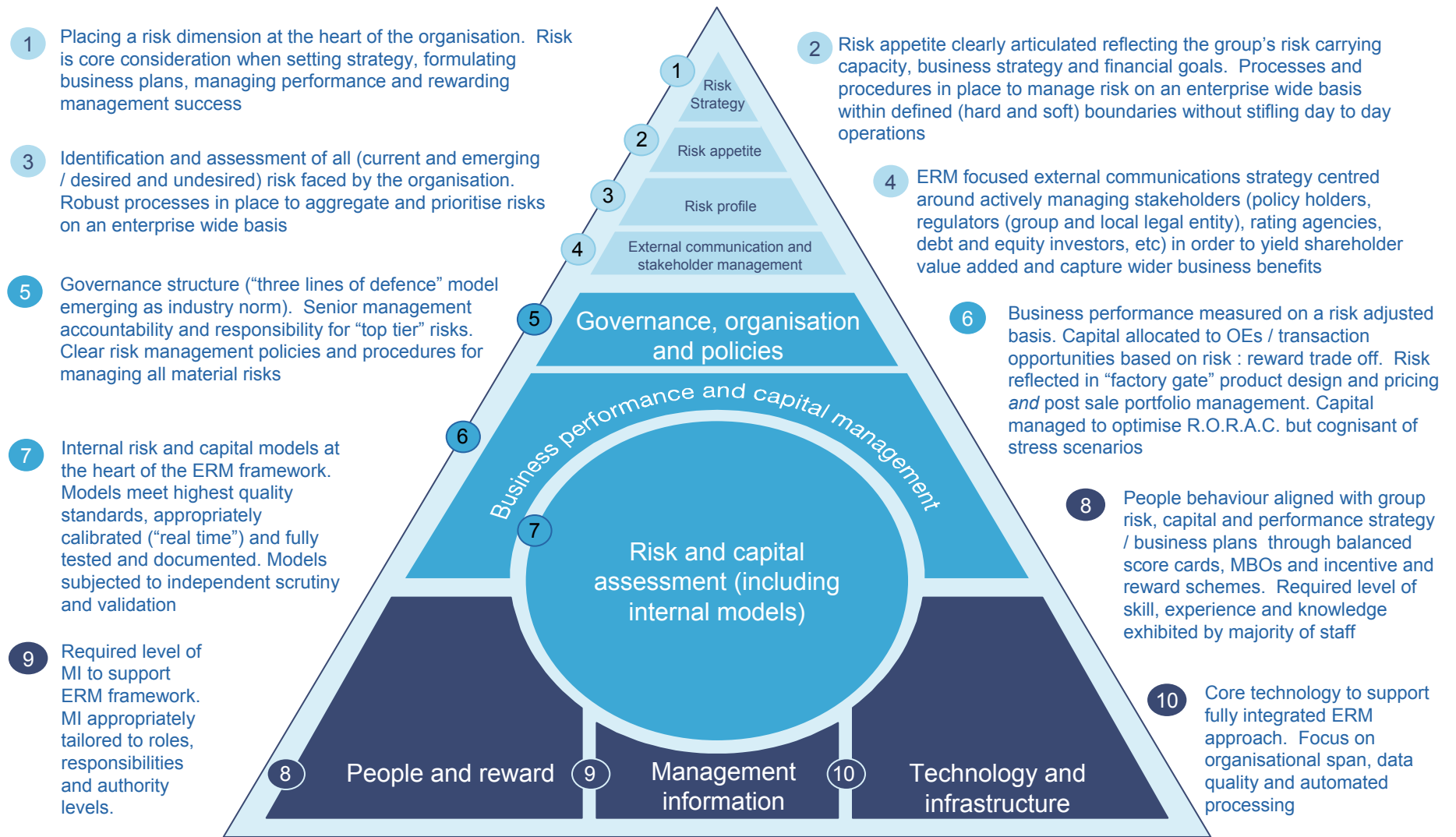
Top Tips – How to get things right

Impact of Solvency II

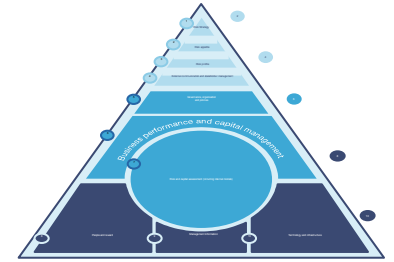
Solvency II requires insurers to implement and embed an integrated risk management framework (“RMF”)



The PwC ERM Framework



The PwC ERM Framework – Professional Indemnity



Section	Area	Examples
Business strategy	Risk Strategy	Write long tail / SME business
	Risk Appetite	Lose no more than one years average earnings
	Risk Profile	10% Solicitor's vs. 15% Appetite
Business management	Risk & Capital assessment (including internal models)	Professional Indemnity Underwriters to sign off key assumptions
Business platform	People and Reward	Bonus claw back (or deferred) for underwriters of long tail business
	Management Information	Key Performance indicators
	Technology and Infrastructure	Data Warehouse

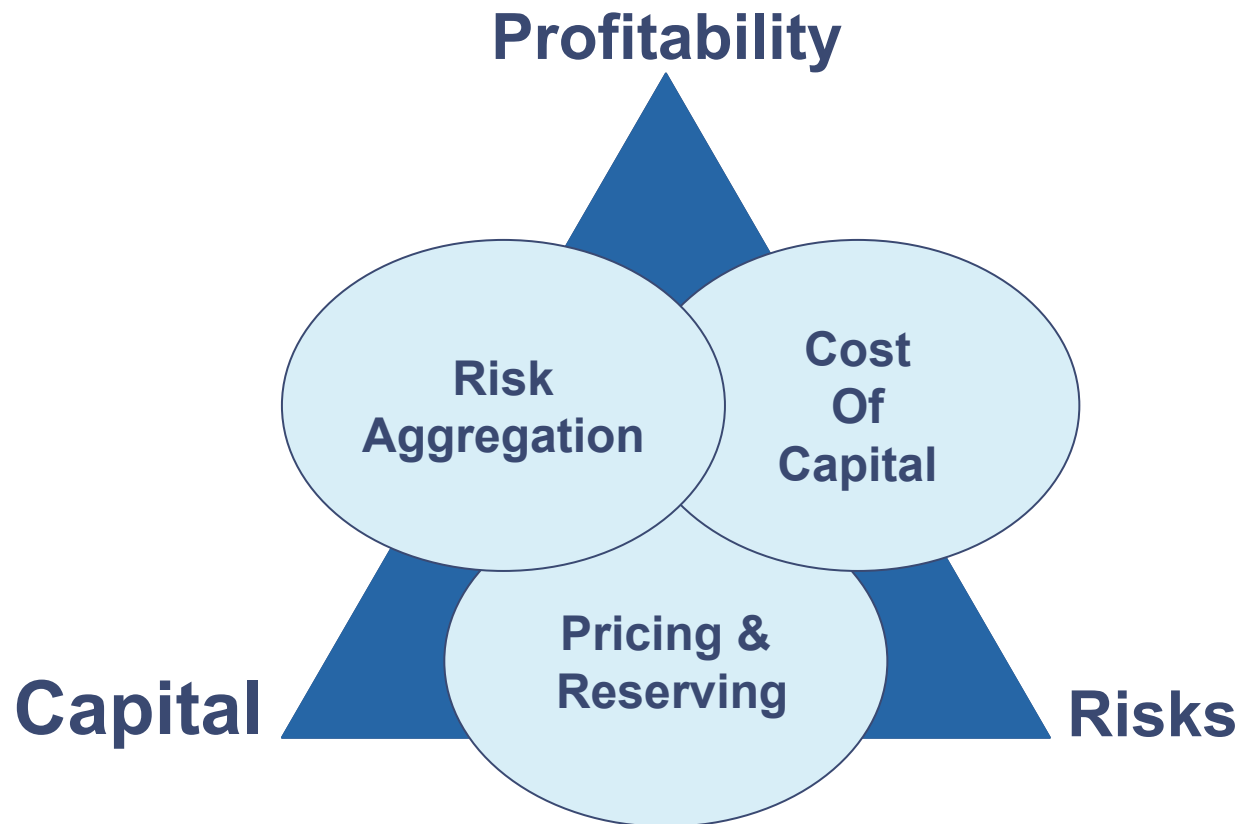
Section three

Profitability – Stability and Turmoil
Impact of Solvency II
Top Tips – How to get things right

Top Tips

Need to consider all aspects of the business to “get things right”

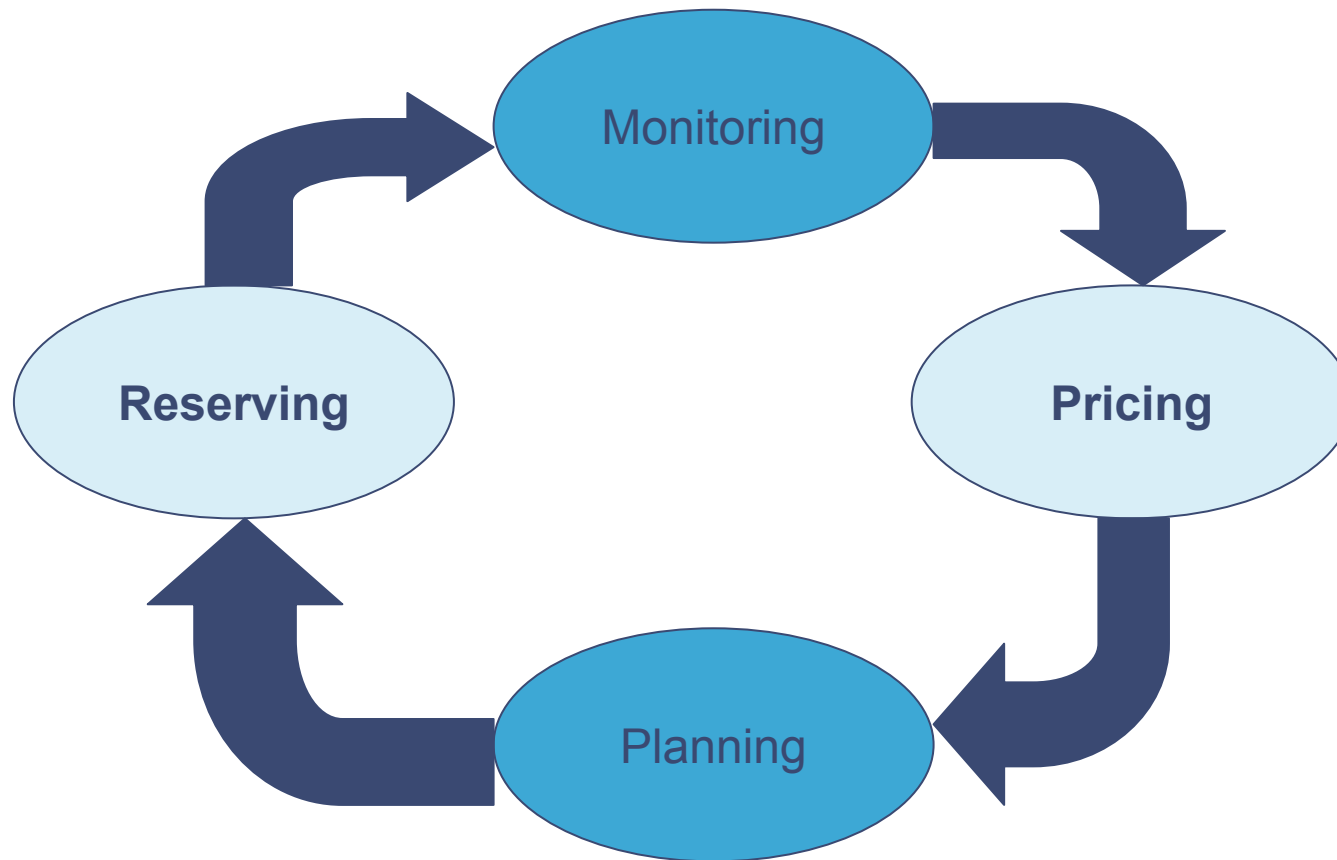
e.g. capital costs, risk aggregation, pricing and reserving



Top Tips

Top Tips – Reserving & Pricing

Cyclical monitoring and planning crucial in times of stability and more so in turmoil



Top Tips

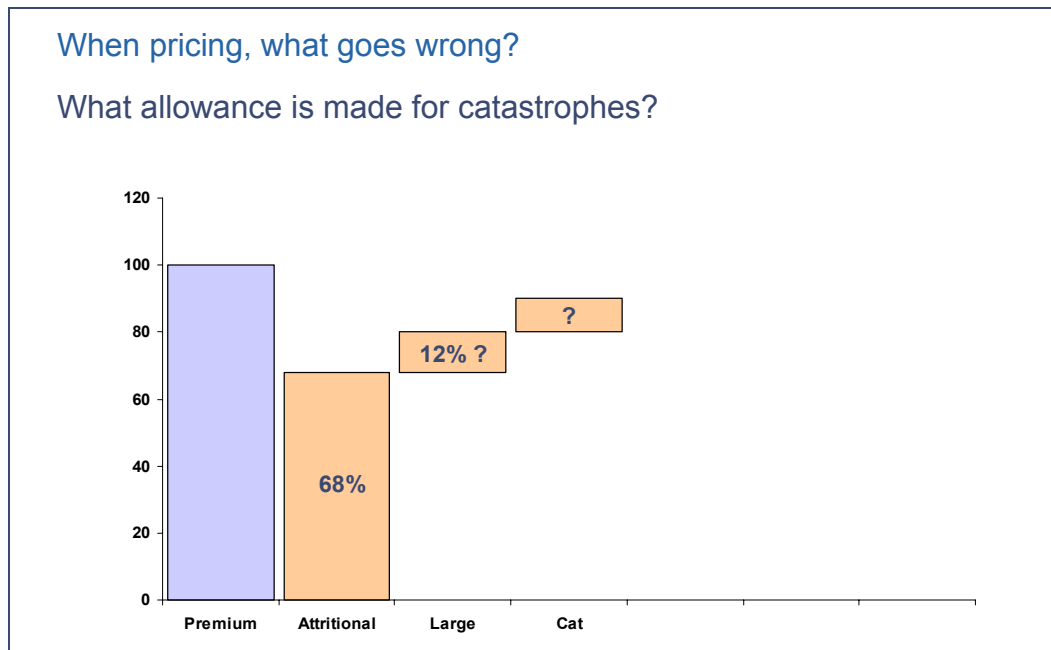
Top Tips – Risk Aggregation (Catastrophes)

Professional Indemnity yet to be impacted by a “Catastrophe”.

Significant analysis and estimation of catastrophes exists for a number of insurance lines.

What allowance is made for catastrophes when pricing Professional Indemnity insurance?

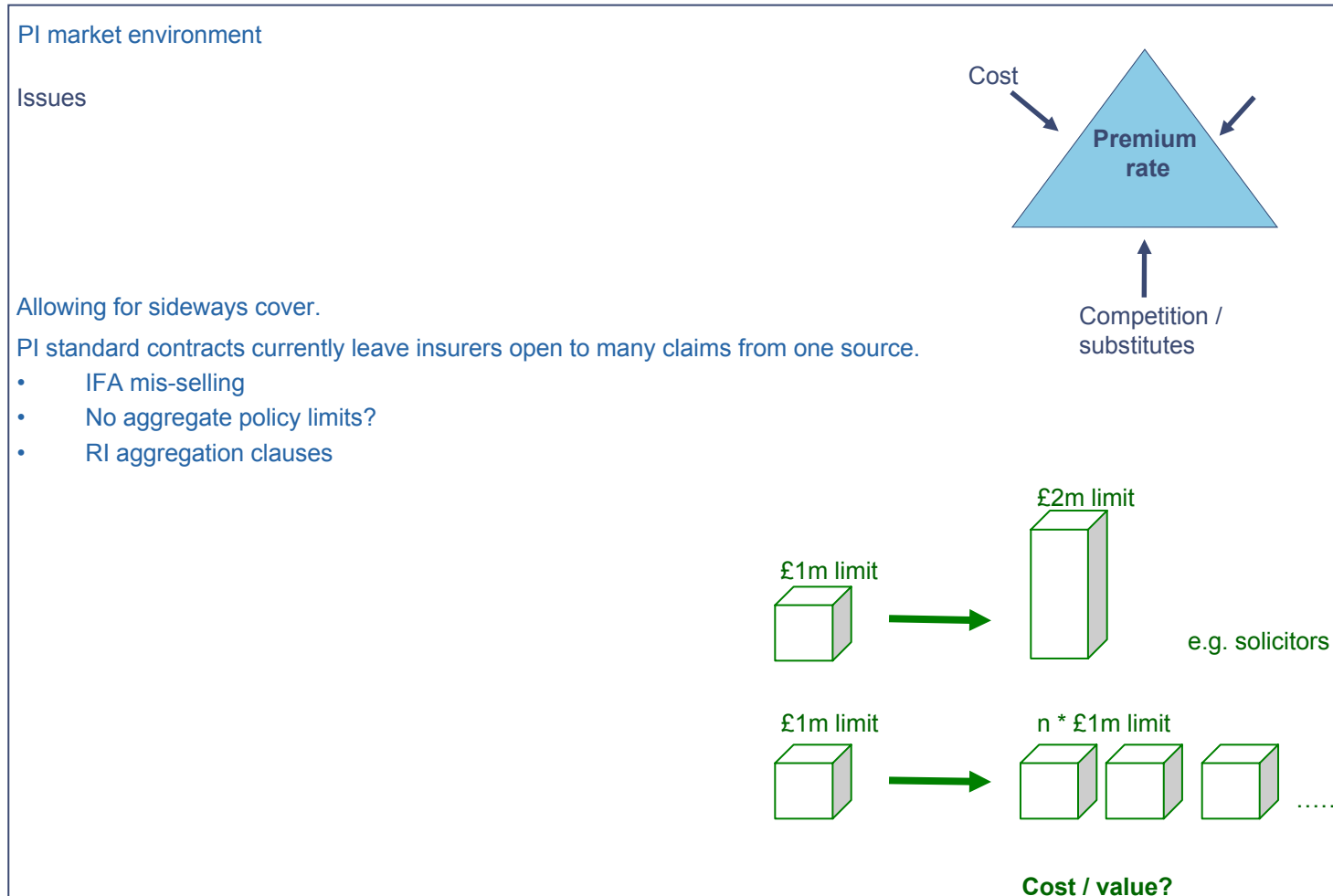
Discussion raised during PIF 2006 - Will action only be taken when it's too late?



Top Tips

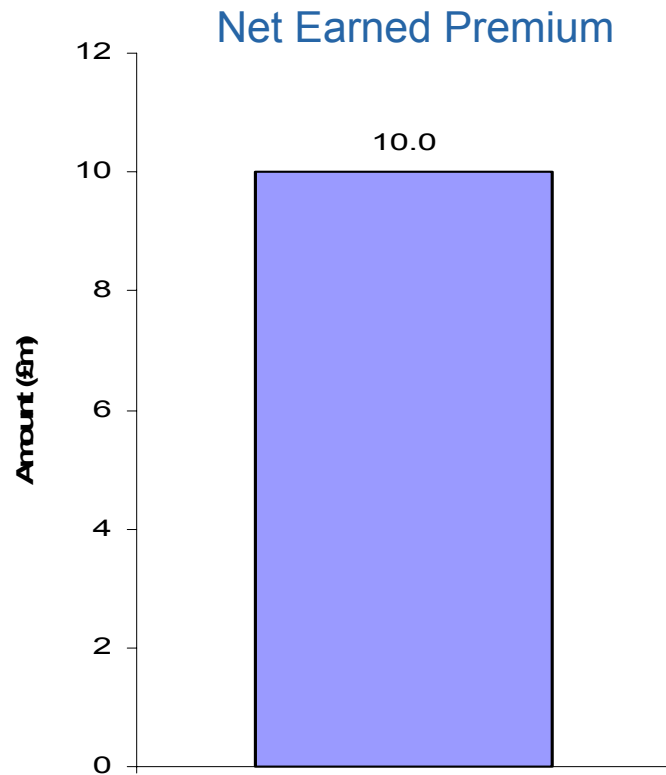
Top Tips – Aggregations of risk (Sideways cover)

Same issues remain from PIF July 2006 – what has been done?



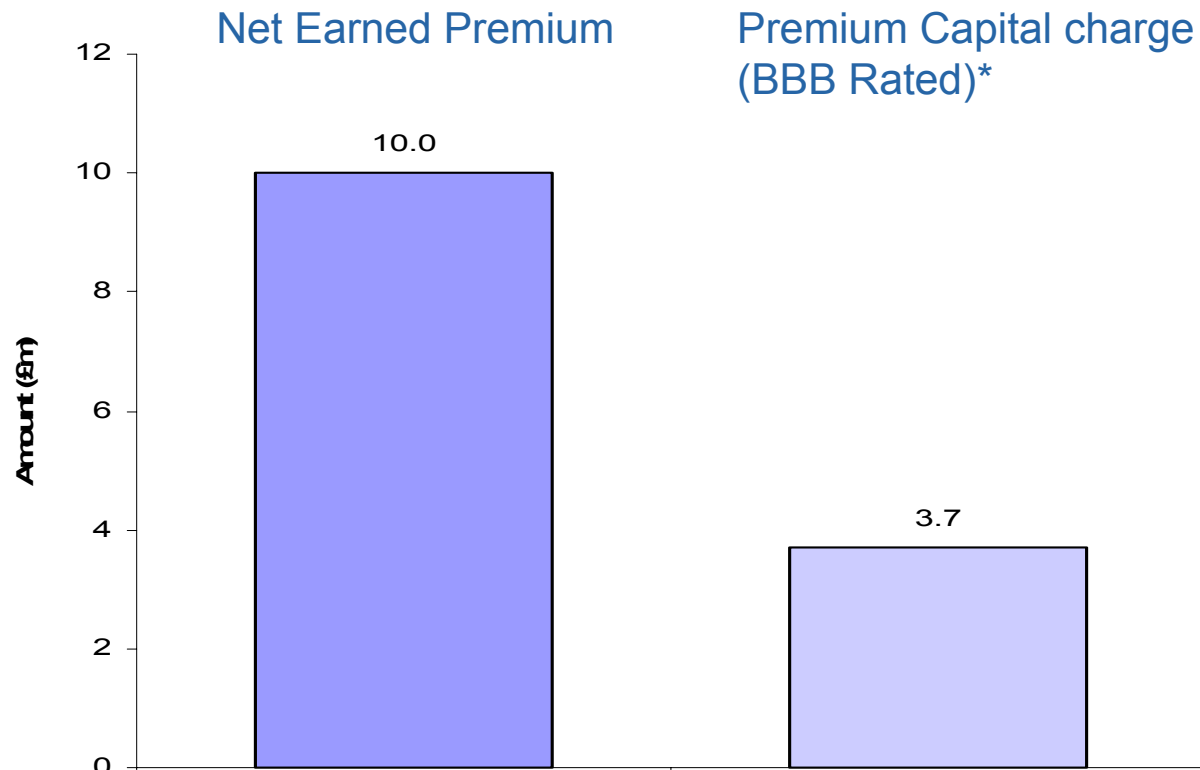
Top Tips

Top Tips – Cost of Capital... Year one (Premium charge)



Top Tips

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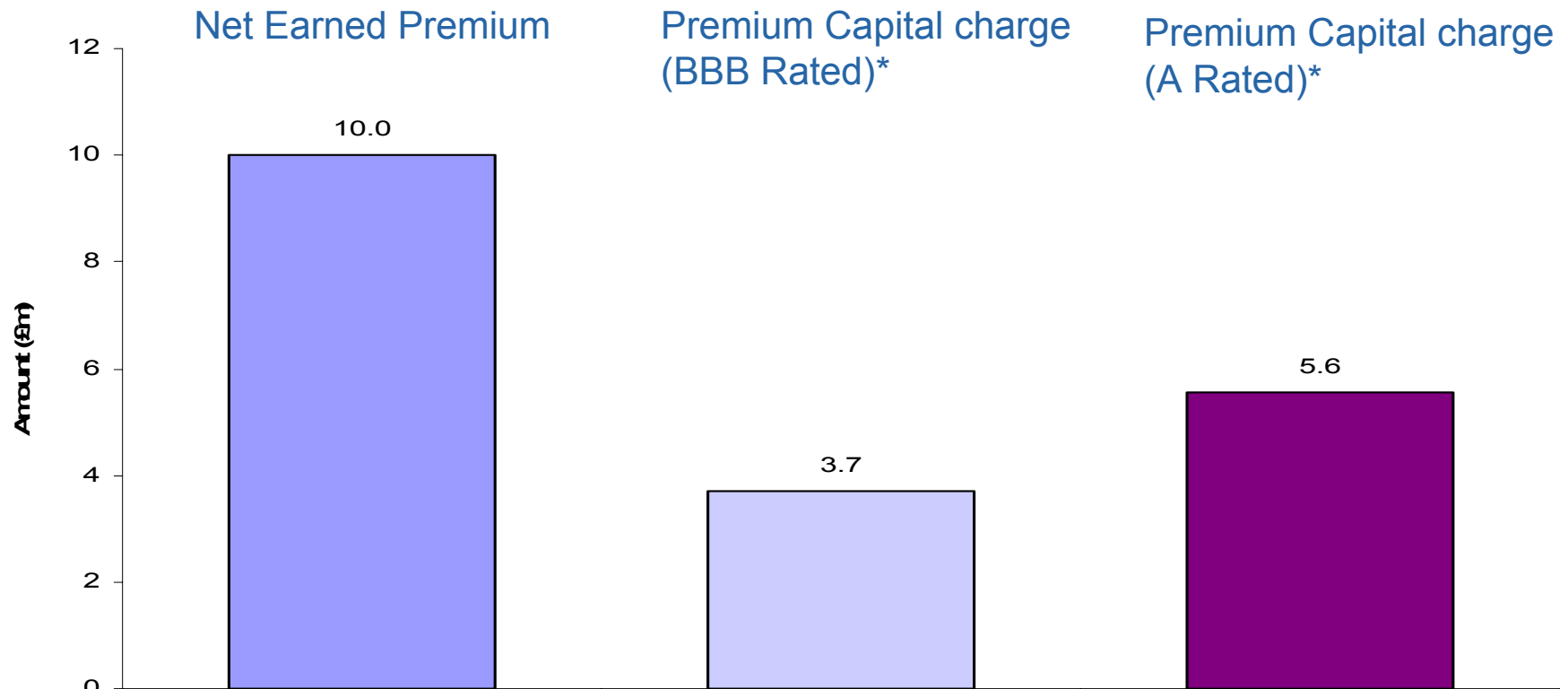


*Capital Charges Based on A.M Best BCAR calculation tool excluding impact of diversification. For diversified portfolios a reduction of 10% could be considered appropriate

Capital charges above based on a BBB rating

Top Tips

Top Tips – Cost of Capital... Year one (Premium charge)

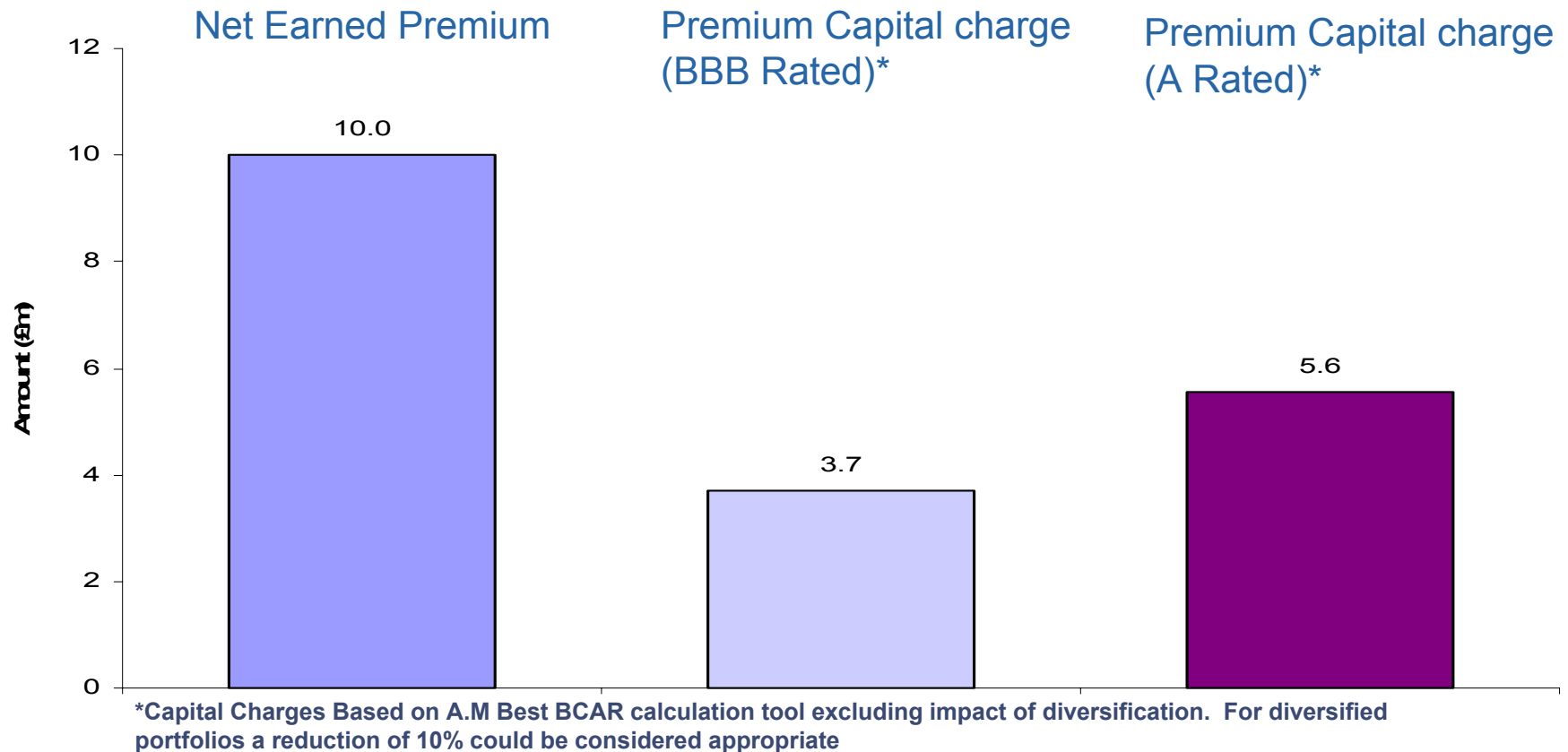


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Capital charge for A rating approximately 150% higher than BBB rating

Top Tips

Top Tips – Cost of Capital... Year one (Premium charge)



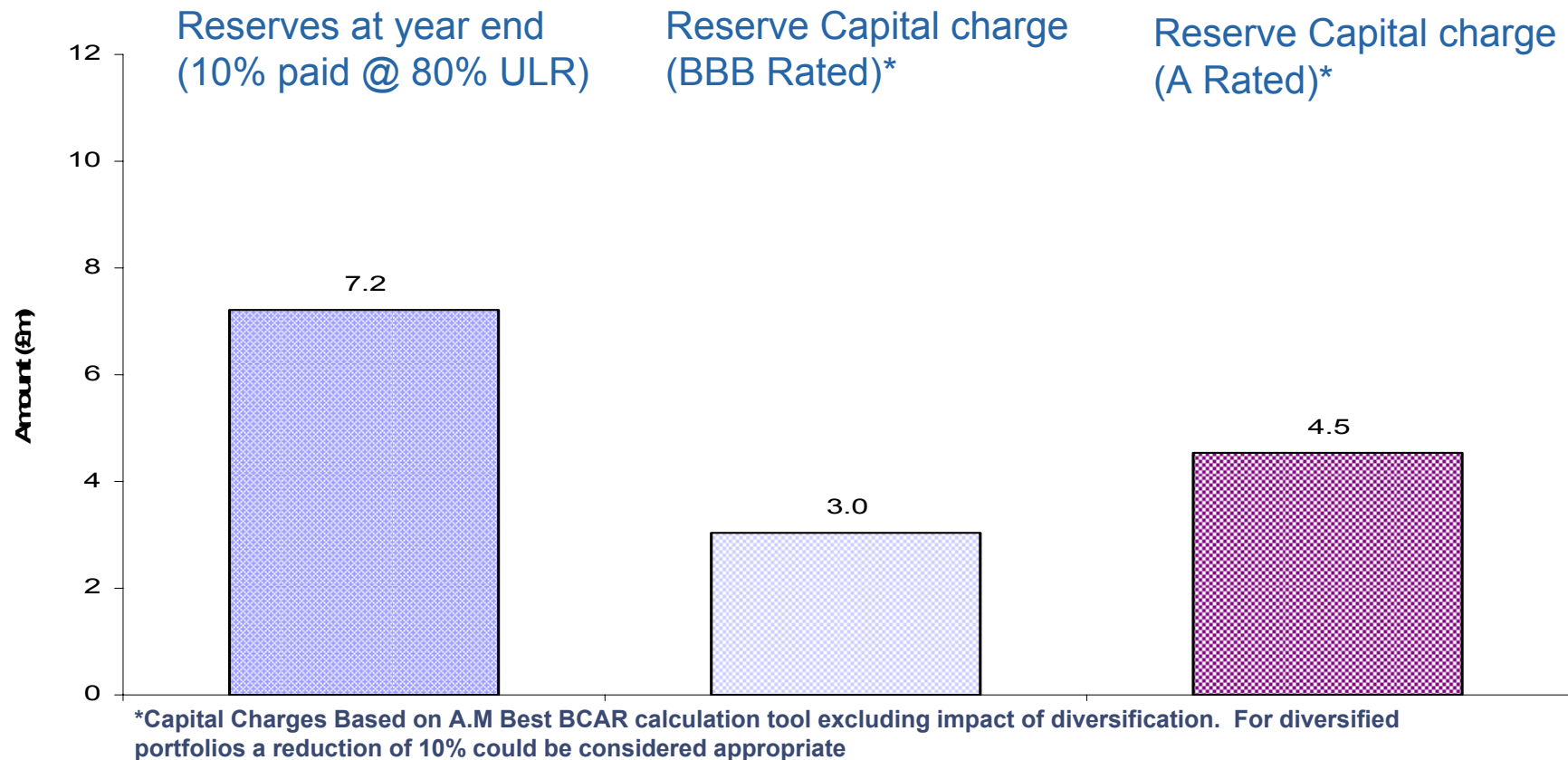
Managing for the upturn

Year one cost of capital for A rating @ 9% p.a. = £5.6m * 9% = £0.5m

E.g. Impact of delay between earning and payment of premium?

Top Tips

Top Tips – Cost of Capital... Year two (reserve charge)



Continued capital charges

Year two cost of rating @ 9% p.a. = $£4.5m * 9% = \underline{£0.4m}$

E.g. Impact of reserve deterioration?

Top Tips - Summary

- **The current global focus on risk management means we have to consider both the impact and interactions of profitability, capital and risk.**
- **The current state of the Professional Indemnity Insurance market means it is vital to get these things right now.**
- **Consideration needs to be given to the realistic possibility of significant aggregation of risks in the future (e.g. Professional Indemnity catastrophes and sideways cover).**

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