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Critical Illness Pricing: Can Prices get any Lower?

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Critical Illness Pricing

Can Prices get any lower?

26 May 2015

ertise
ponsorship
Thought leadership
Progress
Community
Sessional Meetings
Education
Working parties
Volunteering
Research
Shaping the future
Networking
Professional support
Enterprise and risk
Learned society
Opportunity
International profile
Journals
Support

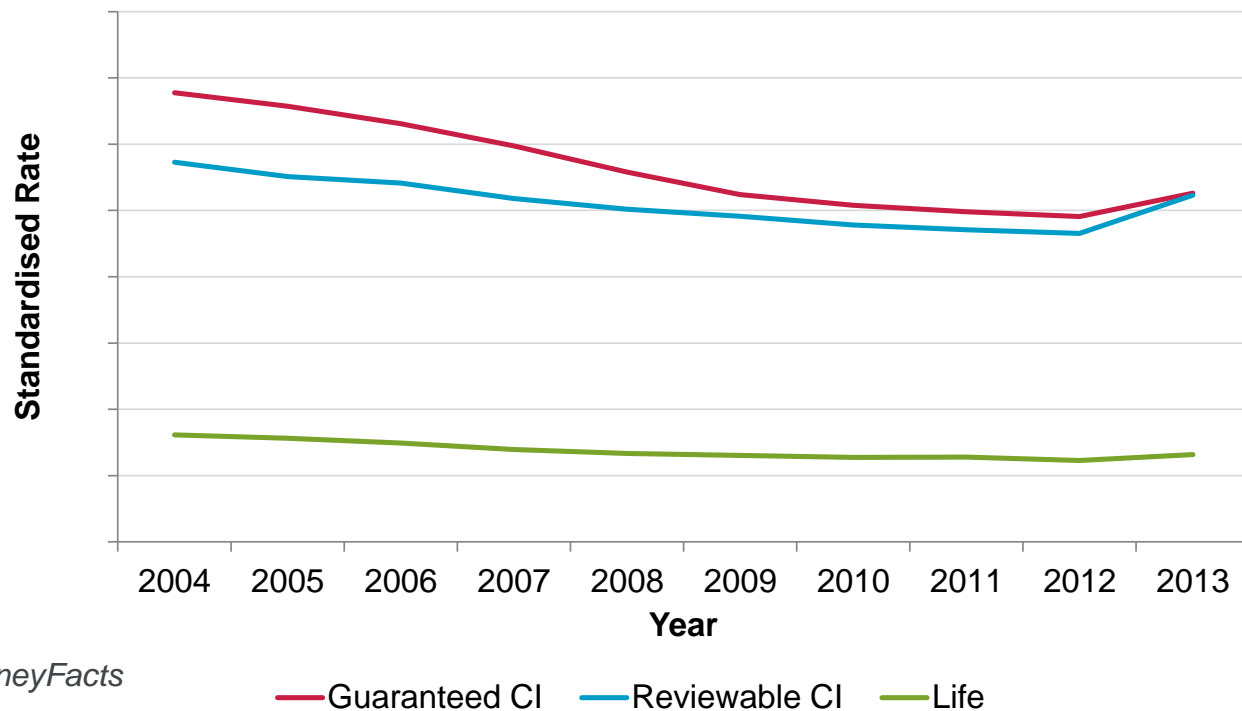
Themes...

- How critical illness pricing compares with term assurance
- Historic changes in attitude to critical illness pricing
- Potential drivers to tumbling CI prices
- Are we missing anything. Definition creep, trend risk and more...
- Lessons from around the Globe



Critical Illness Pricing

- Premium Rates in the Recent Past



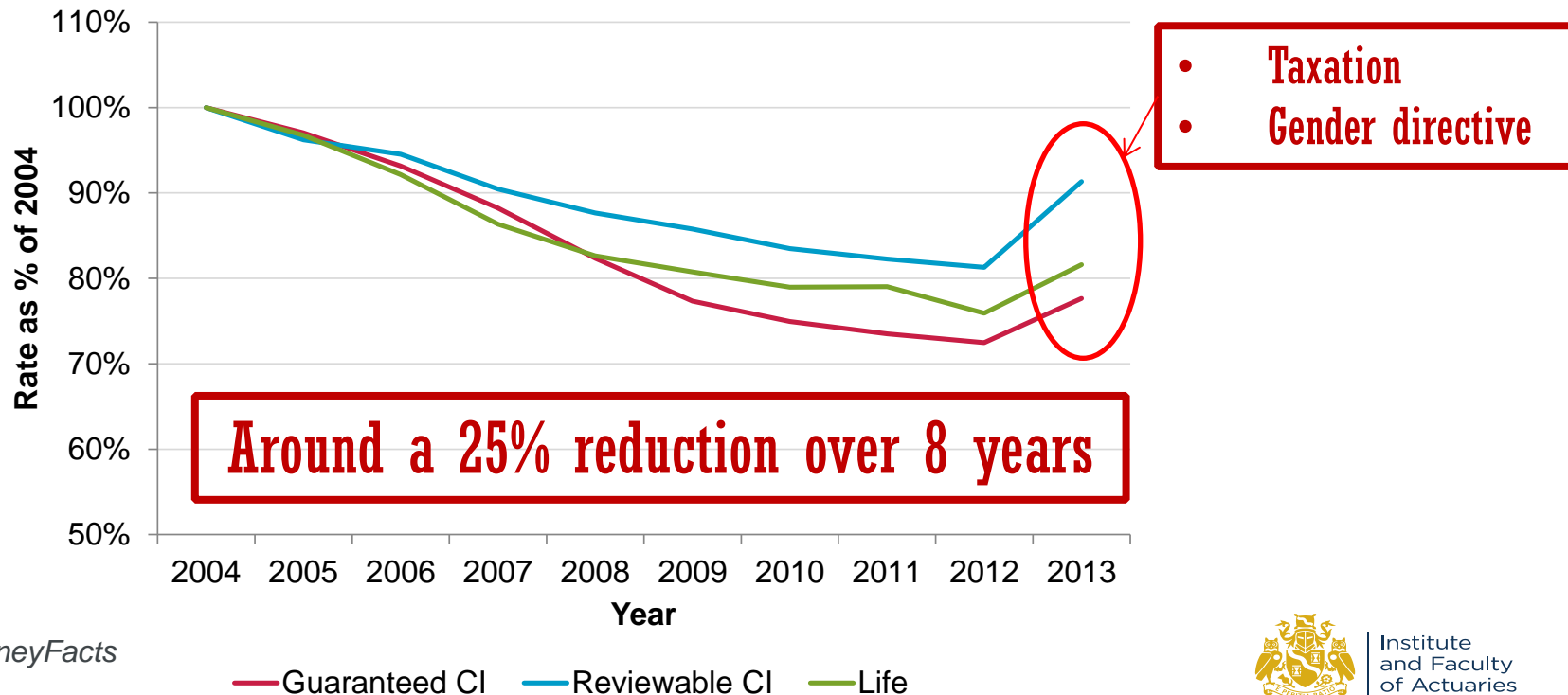
Source: MoneyFacts



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Critical Illness Pricing

- And as a % of 2004 rates



Source: MoneyFacts



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Critical Illness Pricing

- Potential Drivers for Price Reductions

Reinsurance Rates

- Reinsurer morbidity basis (base tables, future trends)
- Reinsurer margins (capital, expenses, margins)
- Quota share %

Pricing Basis

- Morbidity basis (base tables, future trends)
- Lapse basis

Margins & Competition

- Expense reductions, commission rates
- Margin Cuts
- Capital & guarantee loadings

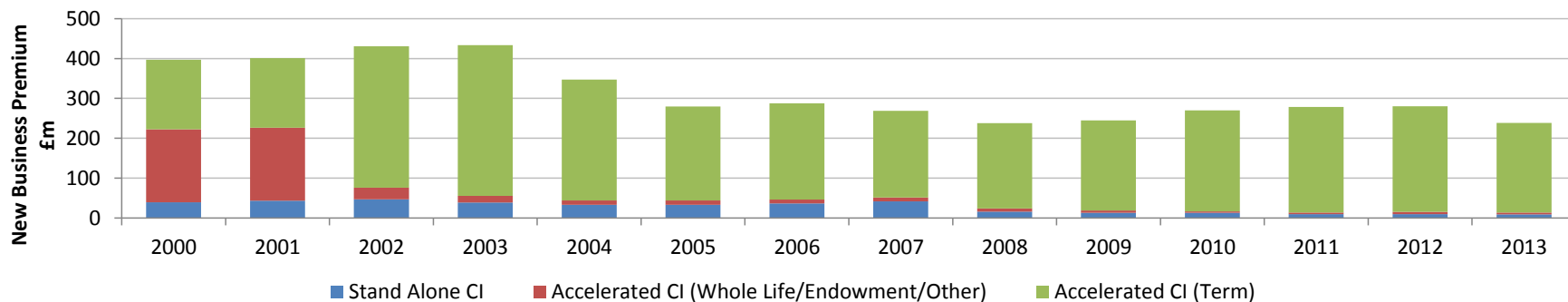
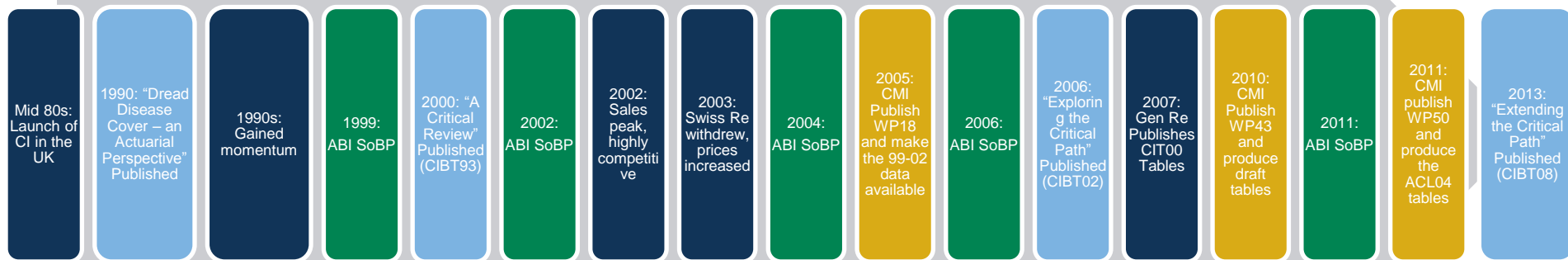
Let's focus on the morbidity basis...



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Mortality vs Morbidity Pricing

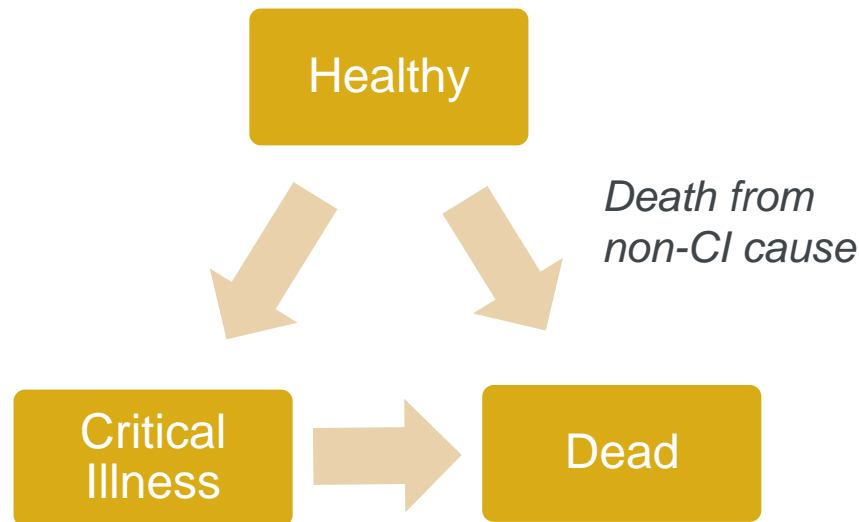
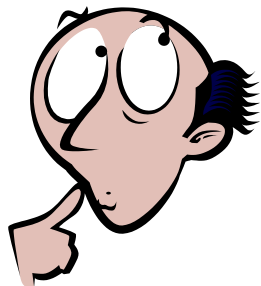
- History of Critical Illness as a Product



Mortality vs Morbidity Pricing

- How does Pricing Compare to Mortality?

“Mortality rates are more complicated than morbidity rates... for the former, you have to fall ill and die, not just fall ill”



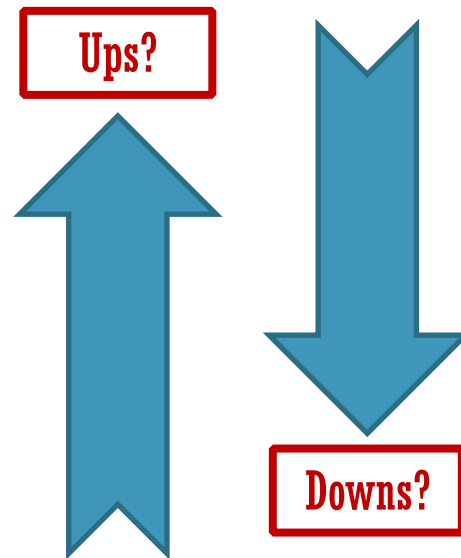
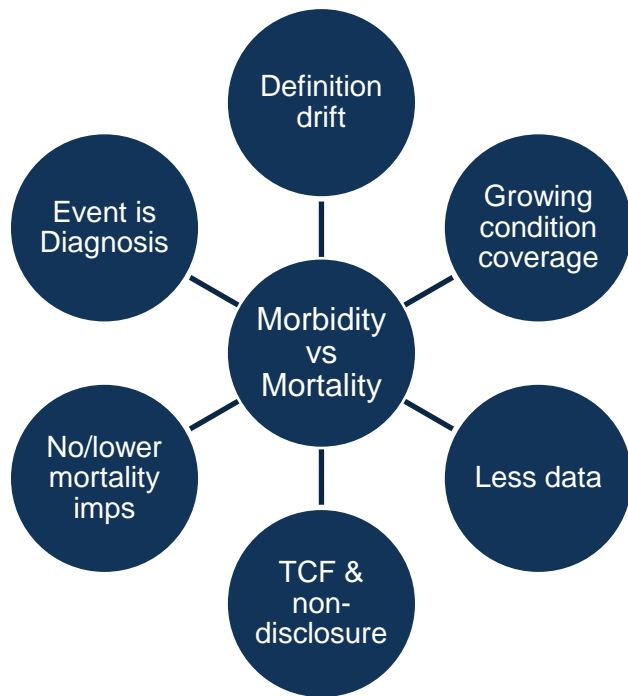
Clearly this is nonsense...



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Mortality vs Morbidity Pricing

- Perception of Greater Uncertainty around Morbidity Pricing?

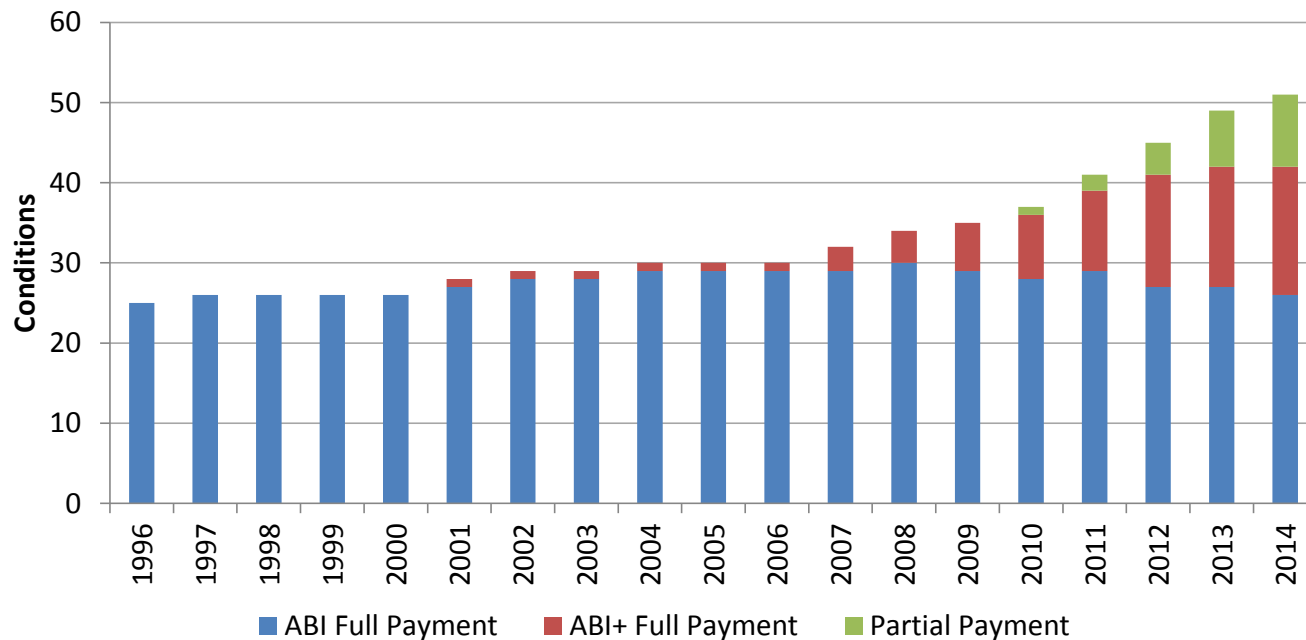


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Potential Drivers to Pricing Changes

- Growing coverage... trends

Average Number of Critical Illness Conditions



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Potential Drivers to Pricing Changes

- Growing coverage... trends

Phase I

- ABI Conditions
- Aplastic Anaemia
- Bacterial Meningitis
- Creutzfeldt-Jacob Disease
- Dementia
- Liver Failure

Phase II

- Cardiomyopathy
- Encephalitis
- Multiple System Atrophy
- Open Heart Surgery
- Primary Pulmonary Hypertension
- Progressive Supranuclear Palsy
- Respiratory Failure
- Systemic Lupus Erythematosus

Phase III

- Partial Payments
- Benign Spinal Cord Tumour
- Cardiac Arrest
- Chronic Rheumatoid Arthritis
- Pulmonary artery surgery
- Pneumonectomy
- Devic's Disease
- Muscular Dystrophy

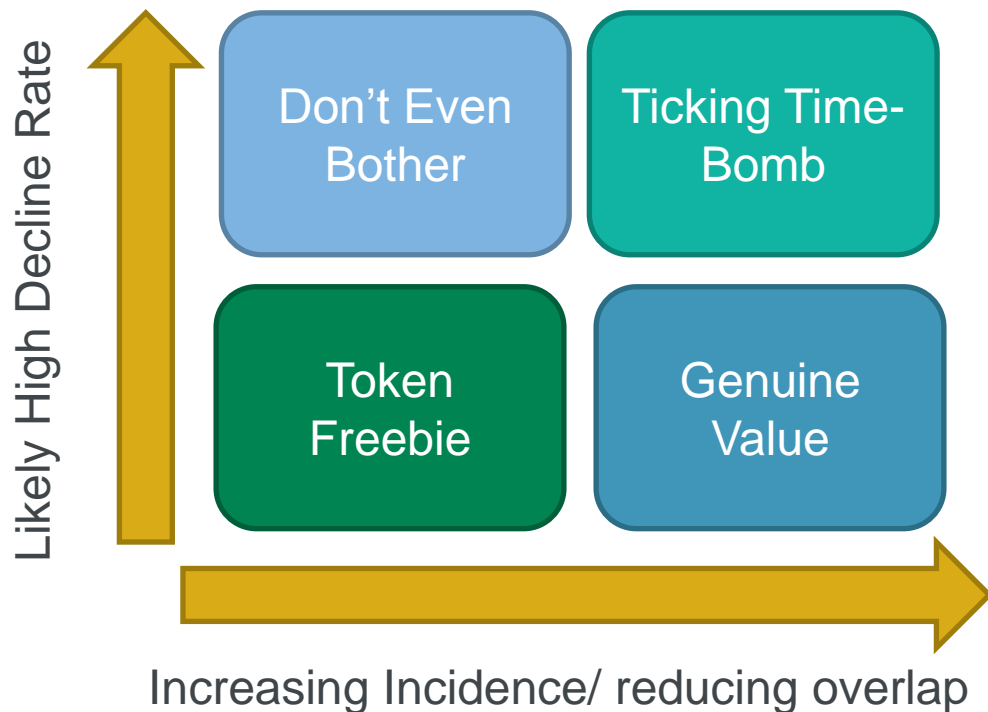
Etcetera...



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Potential Drivers to Pricing Changes

- Growing coverage... costing



Examples...

Creutzfeldt-Jacob Disease
Progressive Supranuclear Palsy

Bacterial Meningitis
Systematic Lupus Erythematosus

Cardiomyopathy
Chronic Rheumatoid Arthritis

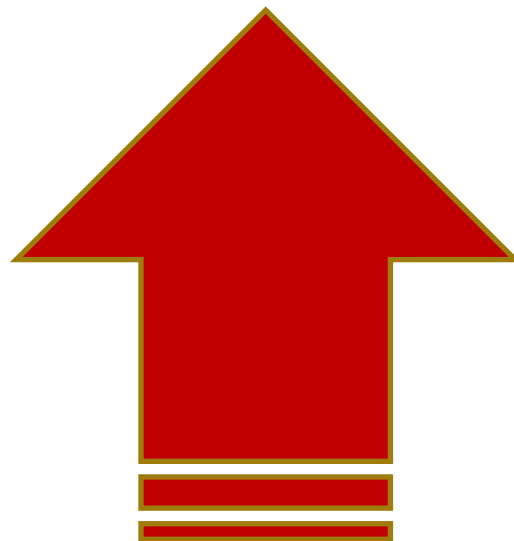


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Potential Drivers to Pricing Changes

- Growing coverage... price impact

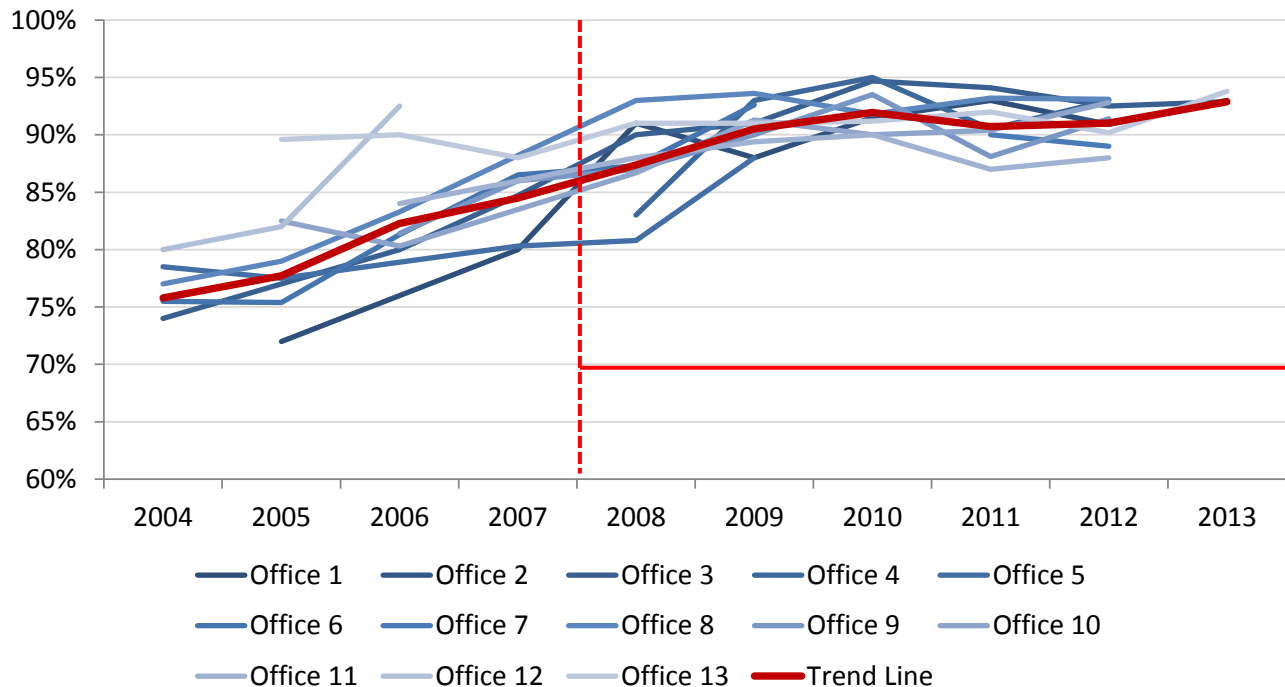
- Conclusion?



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Potential Drivers to Pricing Changes

- Treating Customers Fairly & Non-Disclosure...claims paid



Source: Industry
Claims Paid
Publications & own
calculations

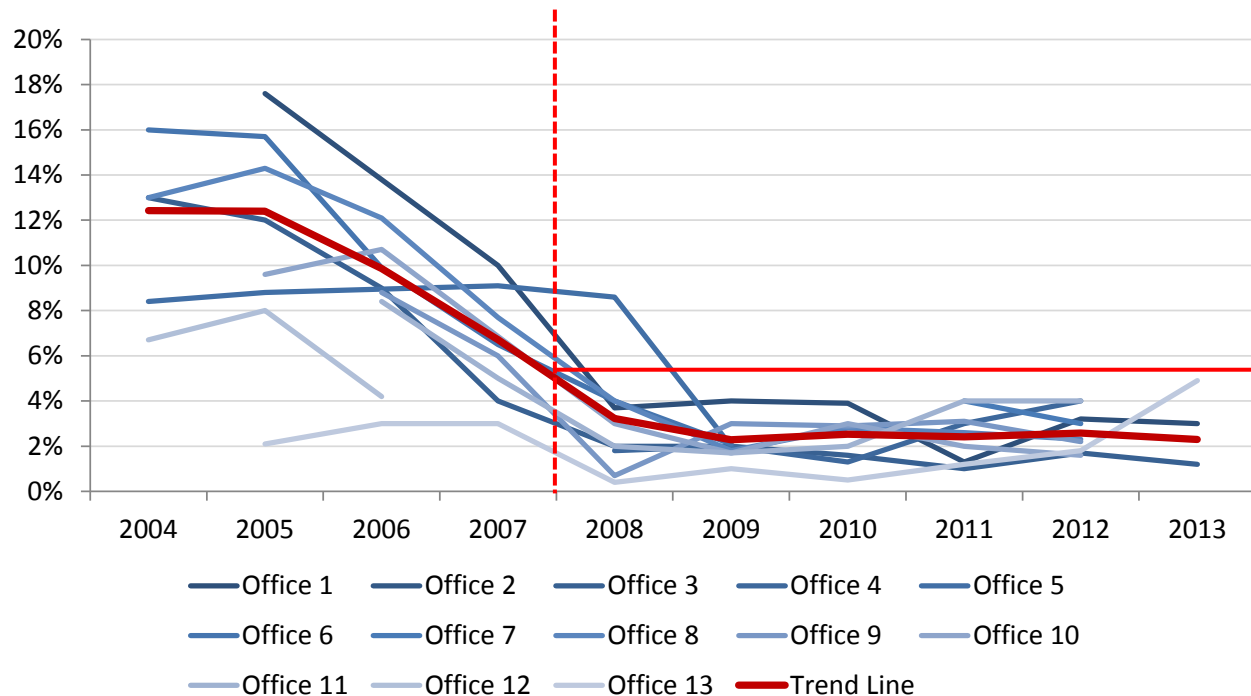
**ABI TCF
guidance**



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Potential Drivers to Pricing Changes

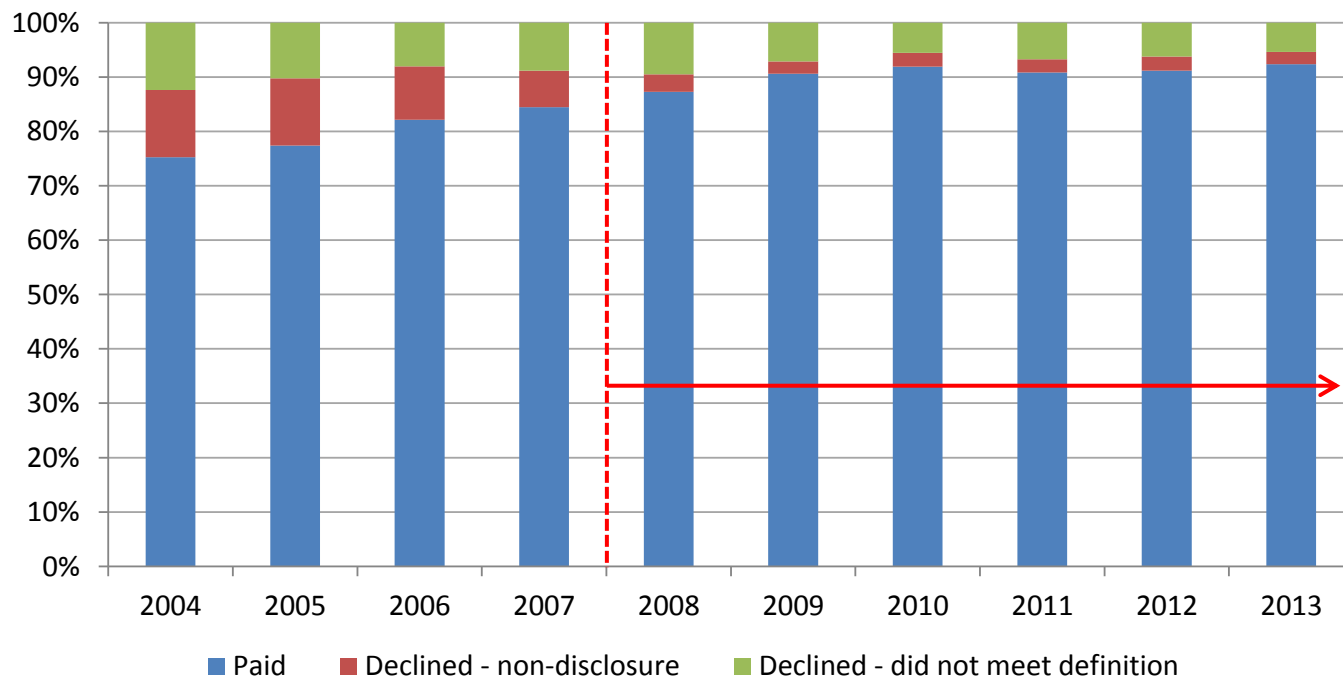
- TCF & Non-Disclosure...claims declined for non-disclosure



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Potential Drivers to Pricing Changes

- Treating Customers Fairly & Non-Disclosure... impact on claims



**ABI TCF
guidance**

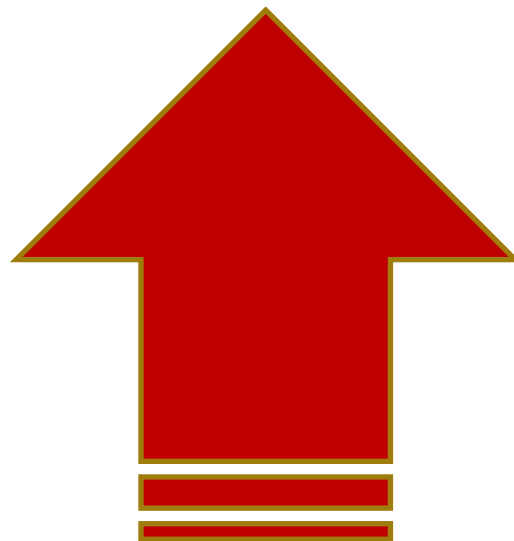


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Potential Drivers to Pricing Changes

- Treating Customers Fairly & Non-Disclosure... price impact

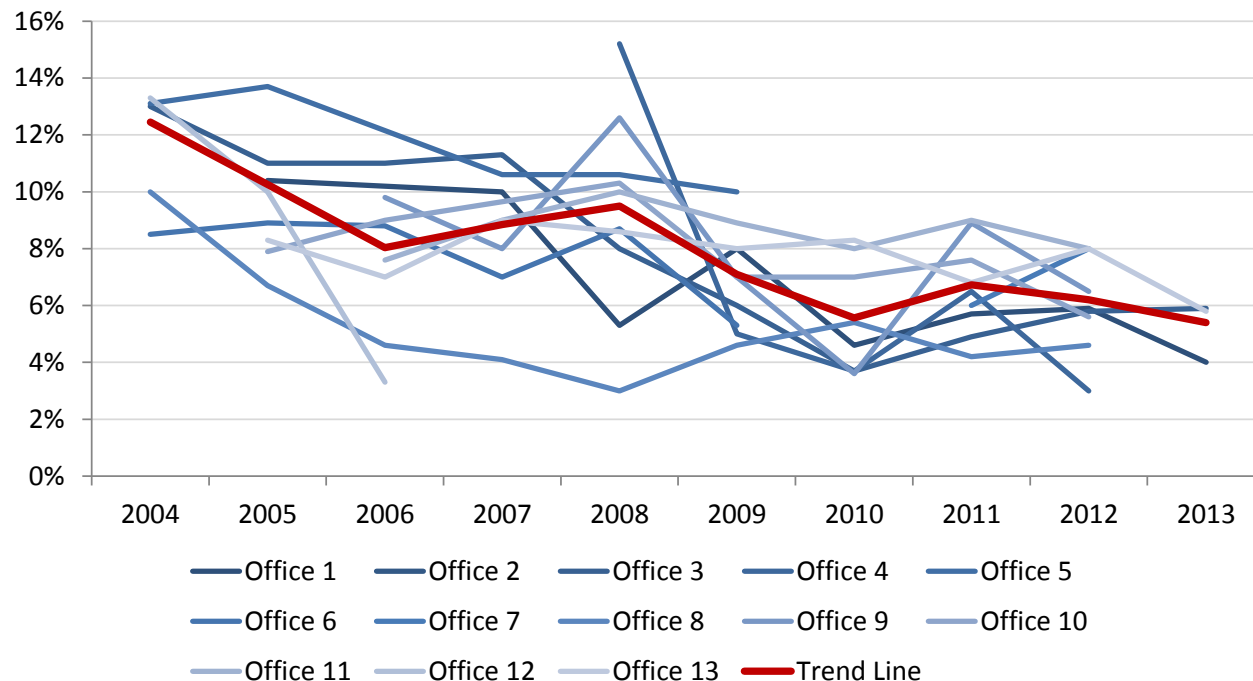
- Conclusion?



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Potential Drivers to Pricing Changes

- Definition Drift...claims declined for not meeting the definition



Source: Industry
Claims Paid
Publications & own
calculations



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Potential Drivers to Pricing Changes

- Definition Drift... claims paid examples where definition not met

Case Study	% Paid Where definition failed
MI – Infero basal hypokinesis	100%
MI - Mildly impaired systolic function	75%
Dilated cardiomyopathy – controlled well	56%
Sub-arachnoid – no sequelae	55%
Acoustic neuroma with surgery	45%
Possible MS (some kind of neurological disorder)	40%
One episode definite MS – full recovery	27%
Inoperable Glioma – no symptoms	25%



**Increasing
Severity**

Source: Pacific Life Re's "Grey Claims" Survey 2010

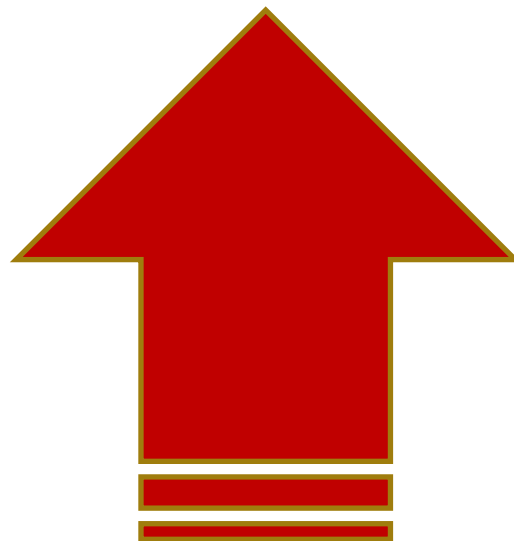


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Potential Drivers to Pricing Changes

- Definition Drift ... price impact

- Conclusion?



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Potential Drivers to Pricing Changes

- Data & Pricing Uncertainty...comparison with Mortality

Mortality

- Established CMI investigation
- History of mortality tables
- High volumes of internal data

Morbidity

- Early reliance on population data
- Growing CMI investigation
- Tables in their infancy
- Anti-selection unclear
- Growing condition coverage

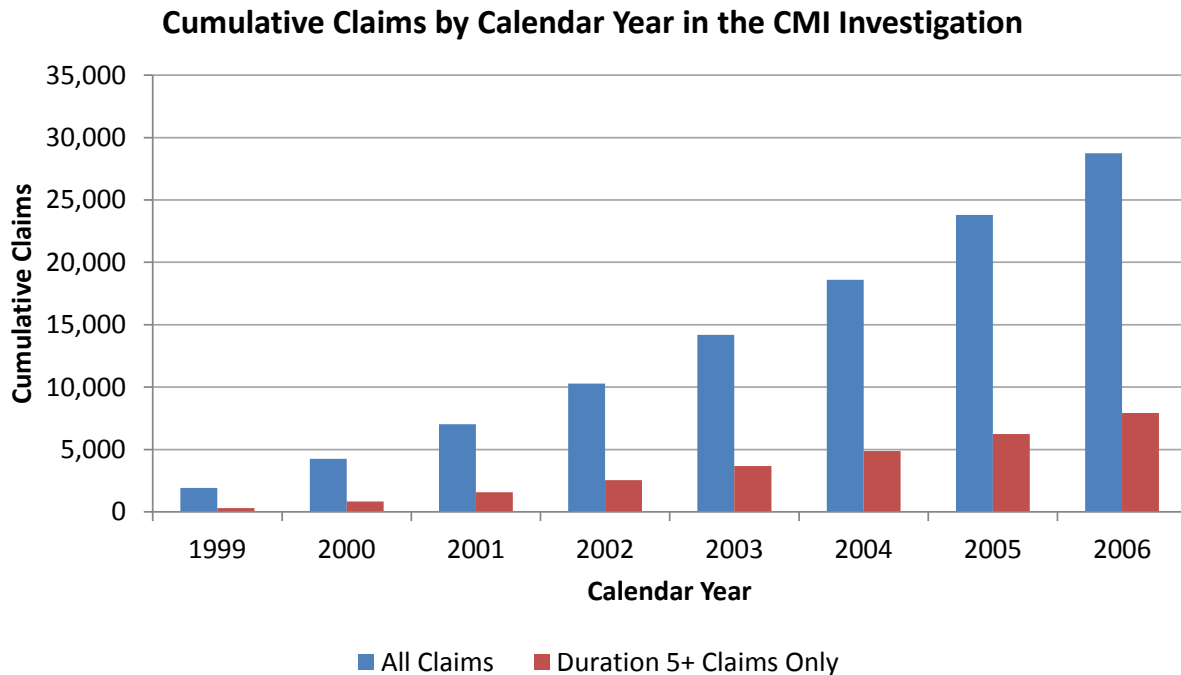
Is this changing?



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Potential Drivers to Pricing Changes

- Data & Pricing Uncertainty...Growing CMI Dataset



Source: CMI

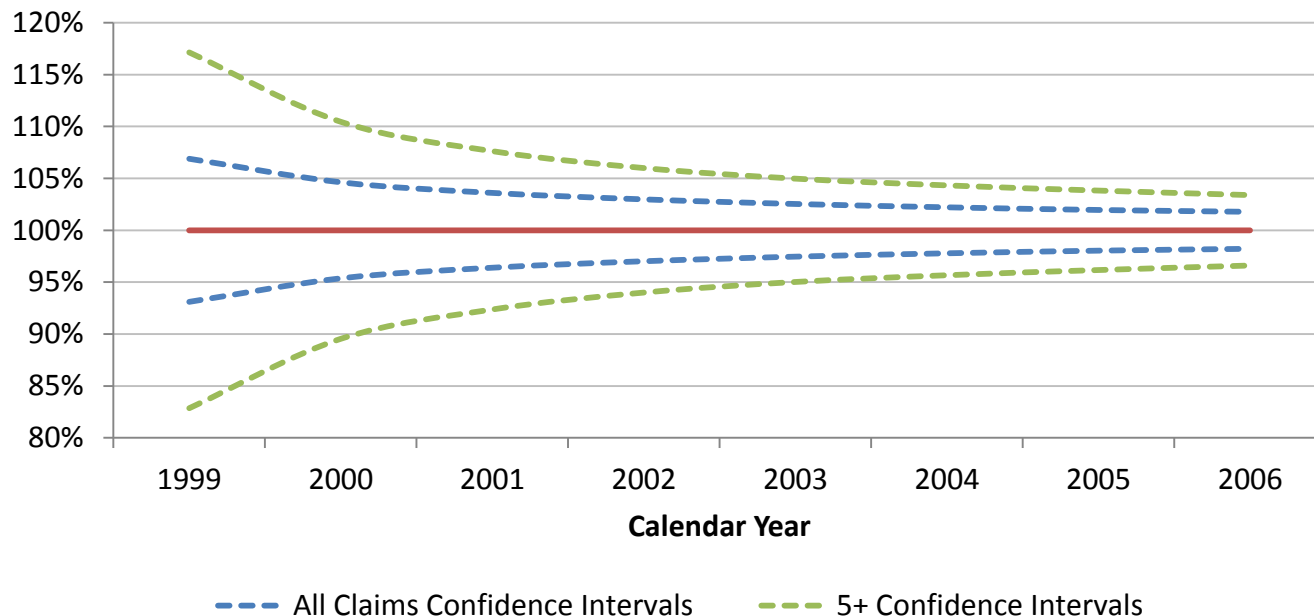


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Potential Drivers to Pricing Changes

- Data & Pricing Uncertainty...Growing CMI Dataset

1 in 200 Confidence Intervals Around Observed Claims



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Potential Drivers to Pricing Changes

- Data & Pricing Uncertainty...but not that simple

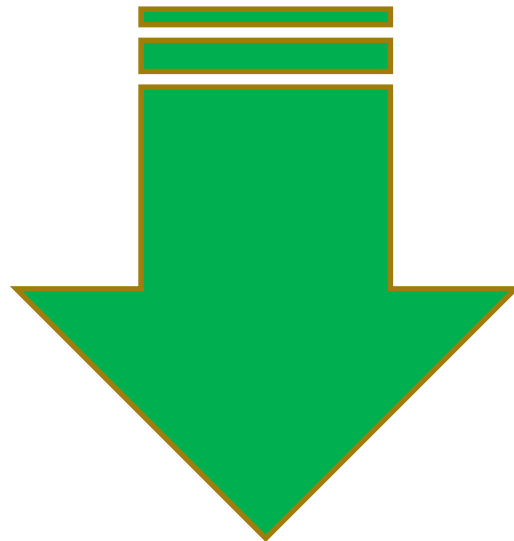
Mix of products, underwriting years	Relevance to prospective experience is not clear
CMI methodology not perfect	Continually evolving
Select shape	Limited ultimate claims, and particularly difficult to quantify given above
Age shape	Credibility is limited at the table extremes and experience for minor conditions yet to emerge



Potential Drivers to Pricing Changes

- Data & Pricing Uncertainty... price impact

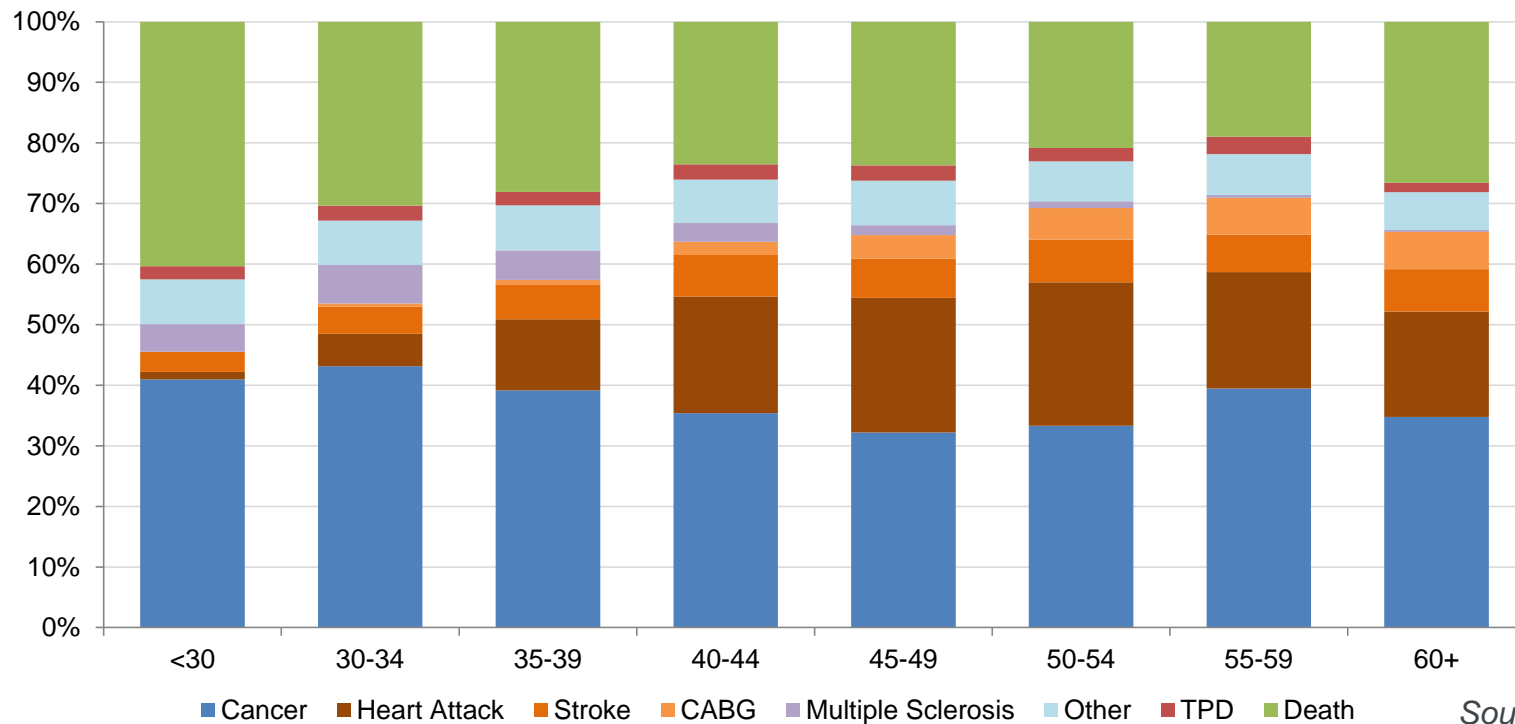
- (Possible)
Conclusion?



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Potential Drivers to Pricing Changes

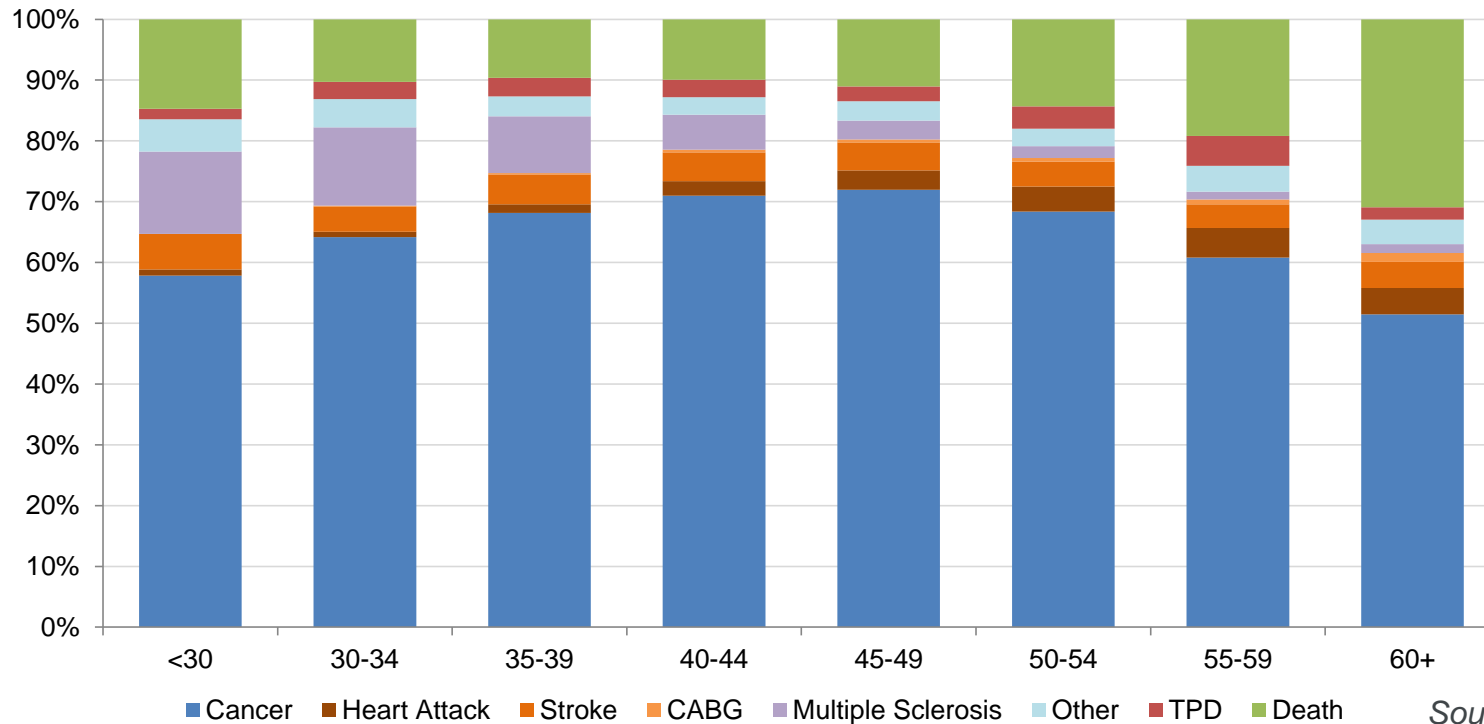
- Trends... what conditions matter for males?



Source: PLRe Internal

Potential Drivers to Pricing Changes

- Trends... what conditions matter for females?

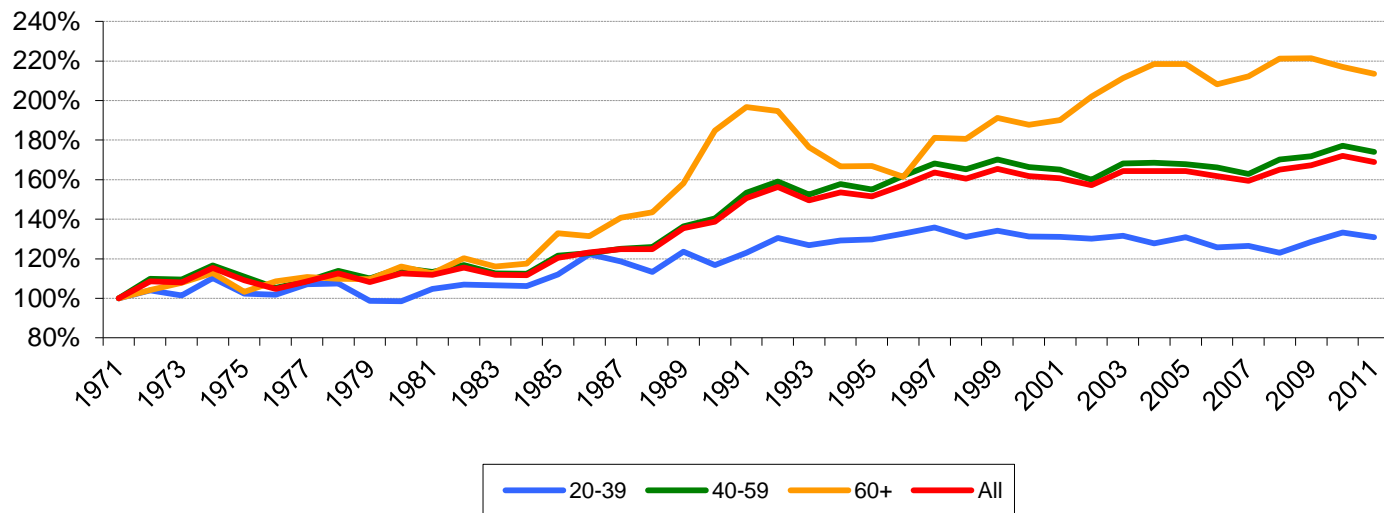


Source: PLRe Internal

Potential Drivers to Pricing Changes

- Trends... cancer...the ups

Breast Cancer Incidence as % of 1971 (Females)



Source: ONS Cancer Registry

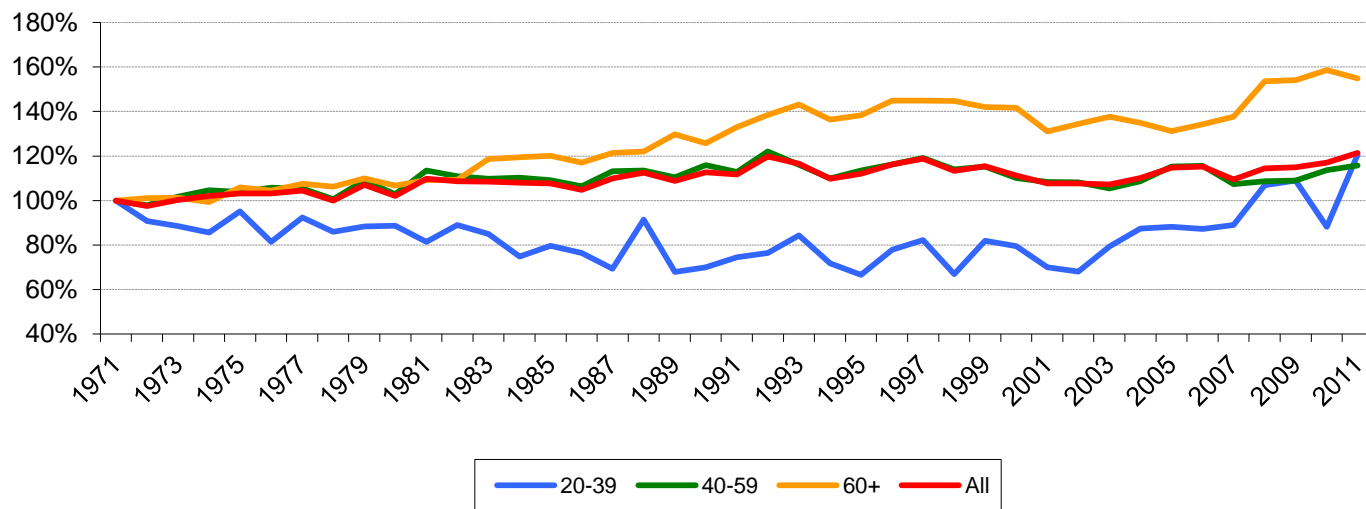


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Potential Drivers to Pricing Changes

- Trends... cancer...the ups

Colorectal Cancer Incidence as % of 1971 (Males)



Source: ONS Cancer Registry

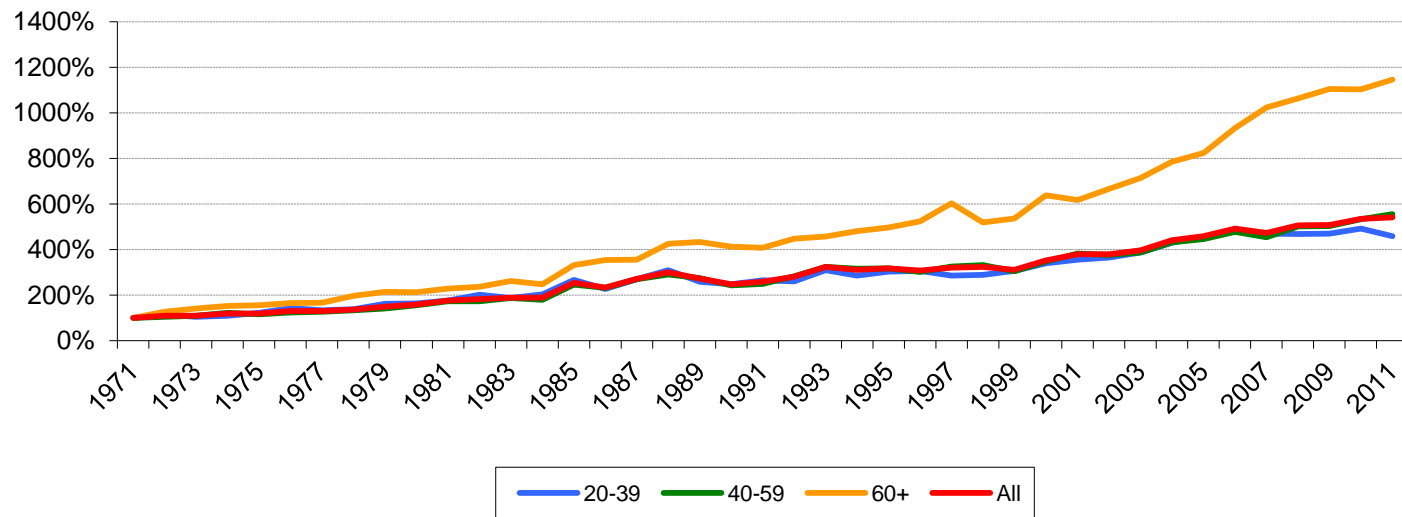


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Potential Drivers to Pricing Changes

- Trends... cancer...the ups

Melanoma Incidence as % of 1971 (Both)



Source: ONS Cancer Registry

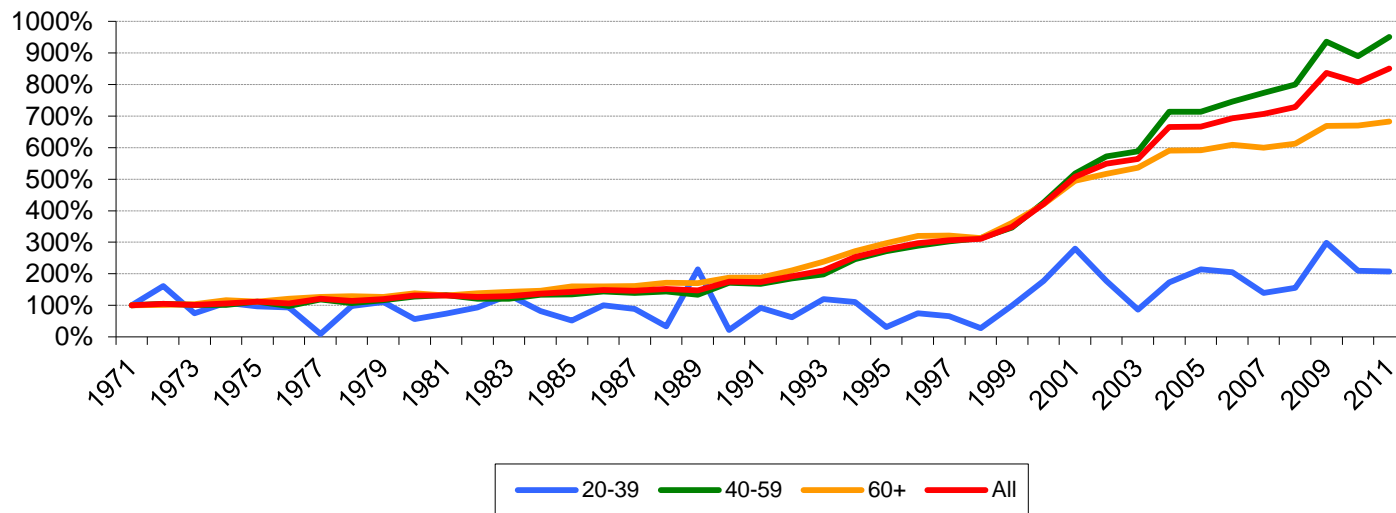


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Potential Drivers to Pricing Changes

- Trends... cancer...the ups

Prostate Cancer Incidence as % of 1971 (Males)



Source: ONS Cancer Registry

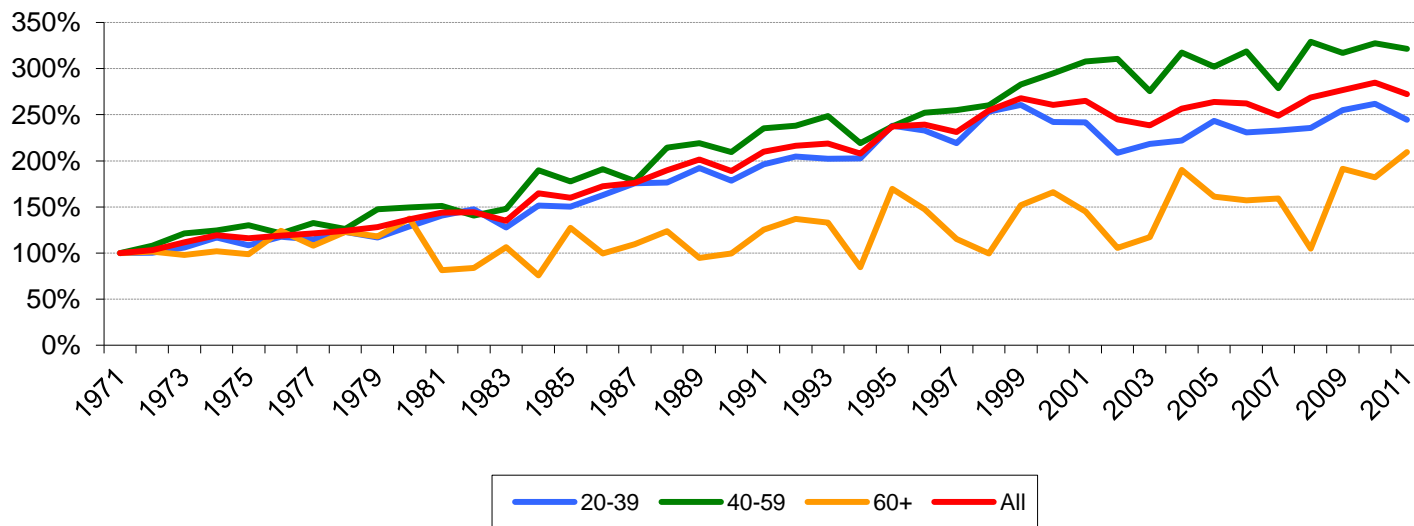


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Potential Drivers to Pricing Changes

- Trends... cancer...the ups

Testicular Cancer Incidence as % of 1971 (Males)



Source: ONS Cancer Registry

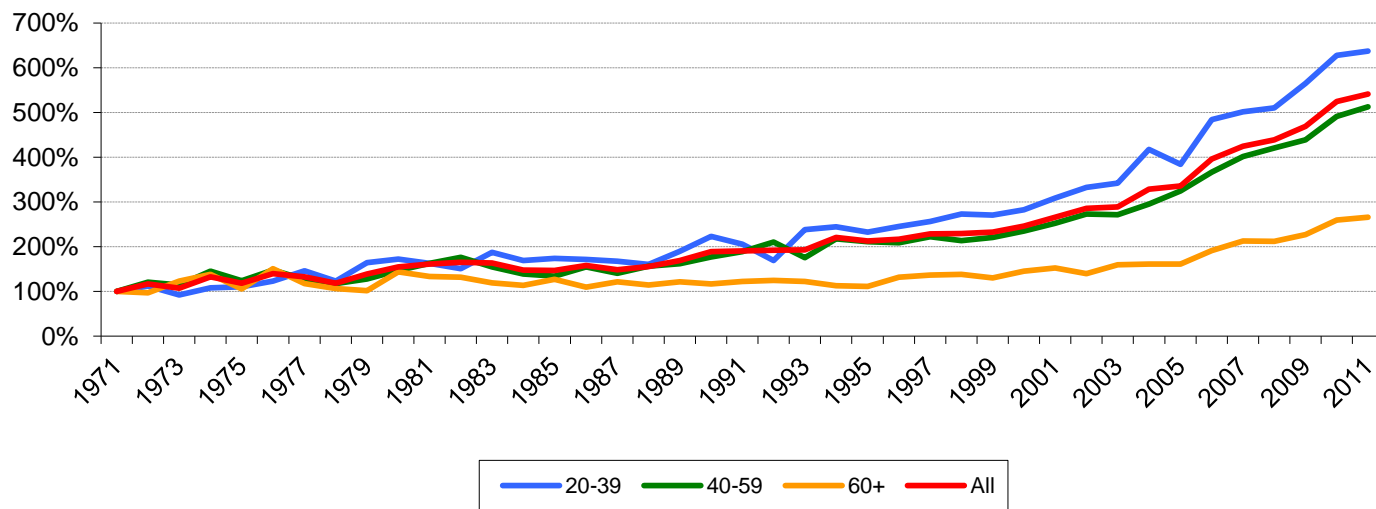


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Potential Drivers to Pricing Changes

- Trends... cancer...the ups

Thyroid Cancer Incidence as % of 1971 (Both)



Source: ONS Cancer Registry

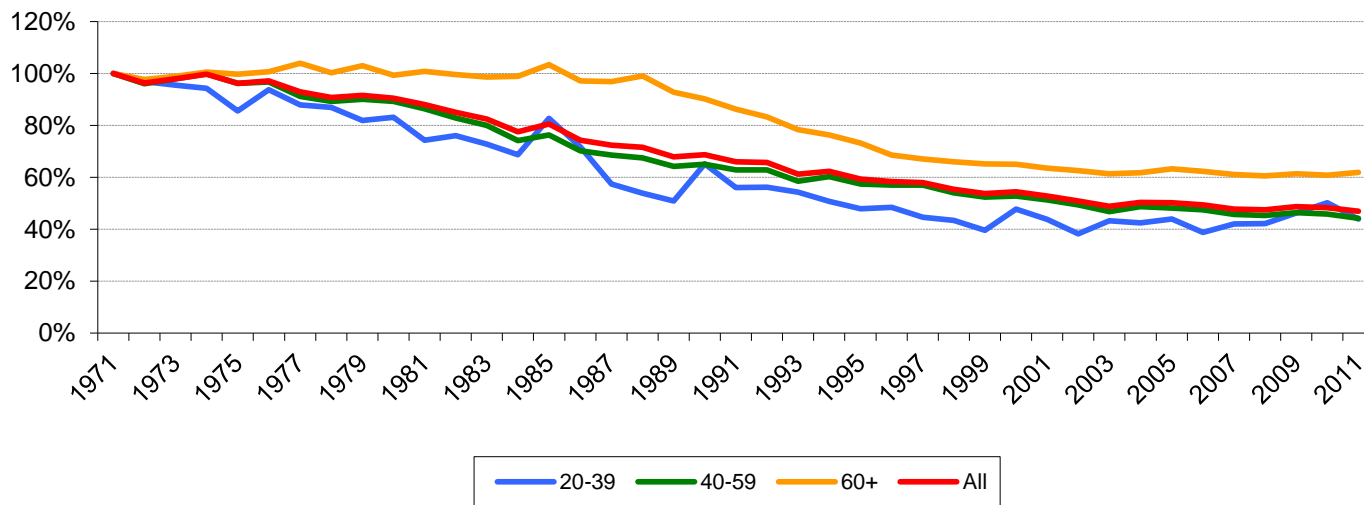


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Potential Drivers to Pricing Changes

- Trends... cancer...the downs

Lung Cancer Incidence as % of 1971 (Both)



Source: ONS Cancer Registry

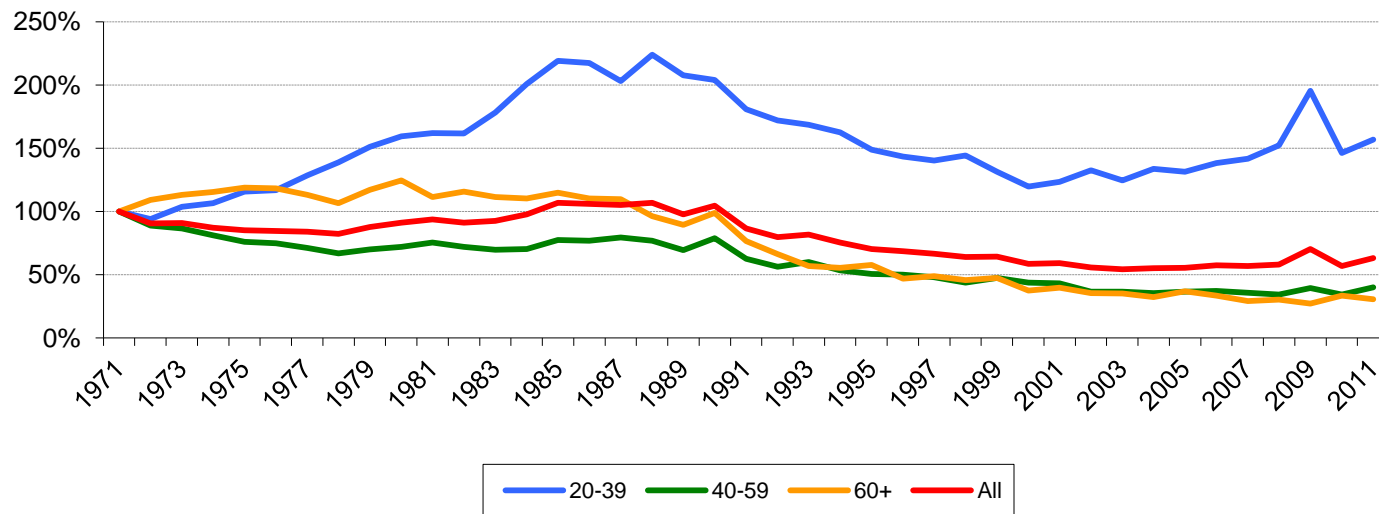


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Potential Drivers to Pricing Changes

- Trends... cancer...the downs

Cervical Cancer Incidence as % of 1971 (Females)



Source: ONS Cancer Registry

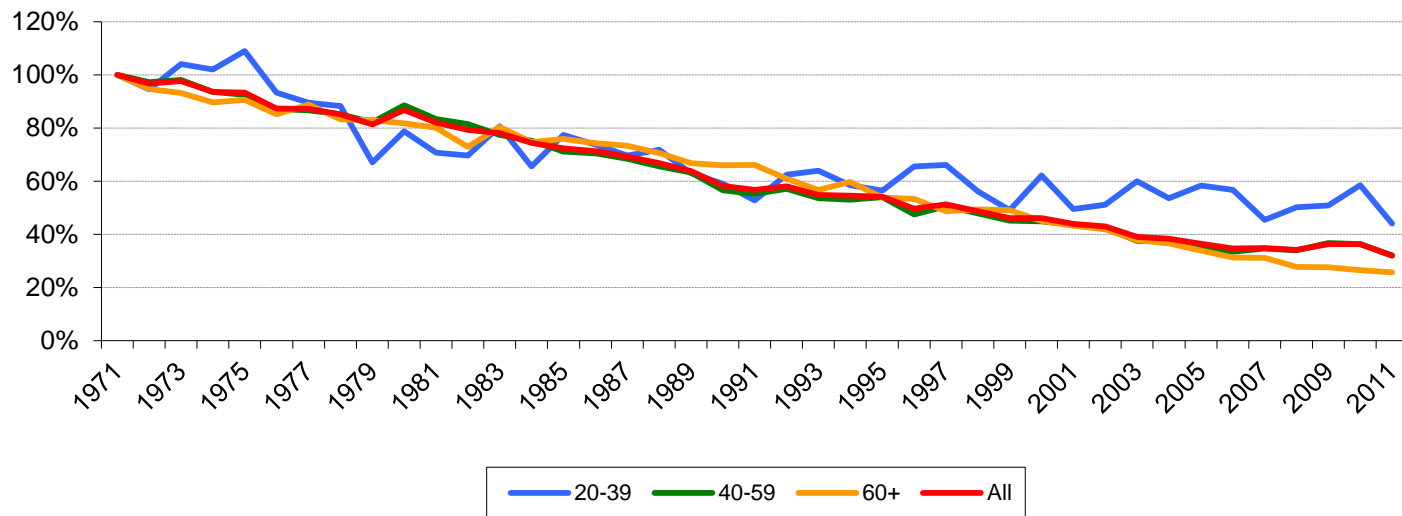


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Potential Drivers to Pricing Changes

- Trends... cancer...the downs

Stomach Cancer Incidence as % of 1971 (Both)



Source: ONS Cancer Registry

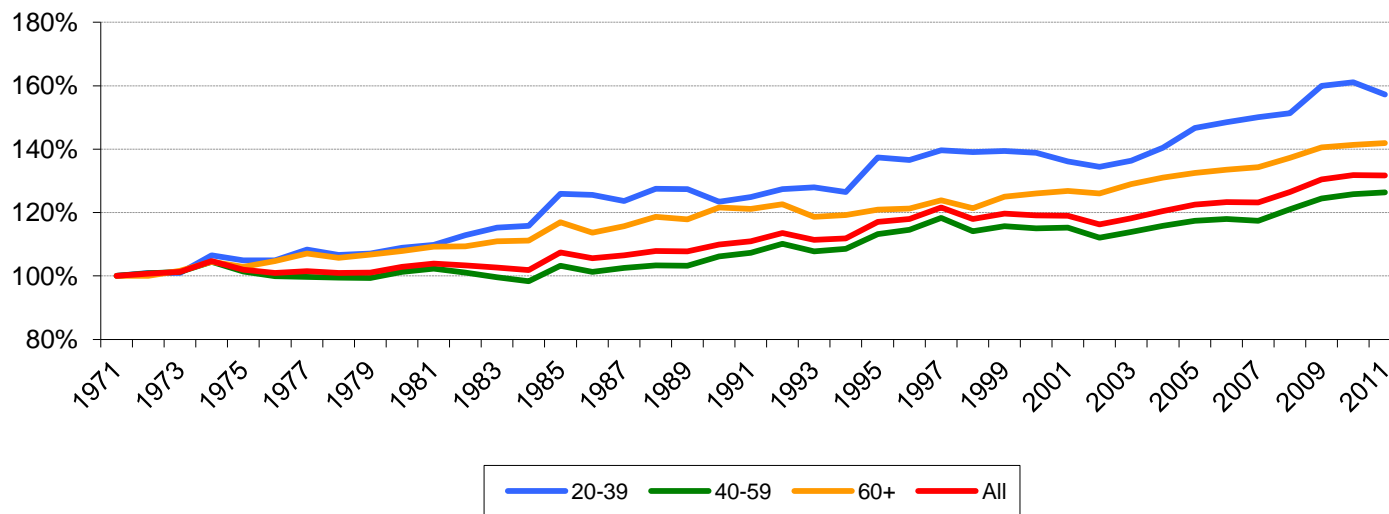


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Potential Drivers to Pricing Changes

- Trends... overall cancer

Cancer Incidence as % of 1971 (Both)



Source: ONS Cancer Registry

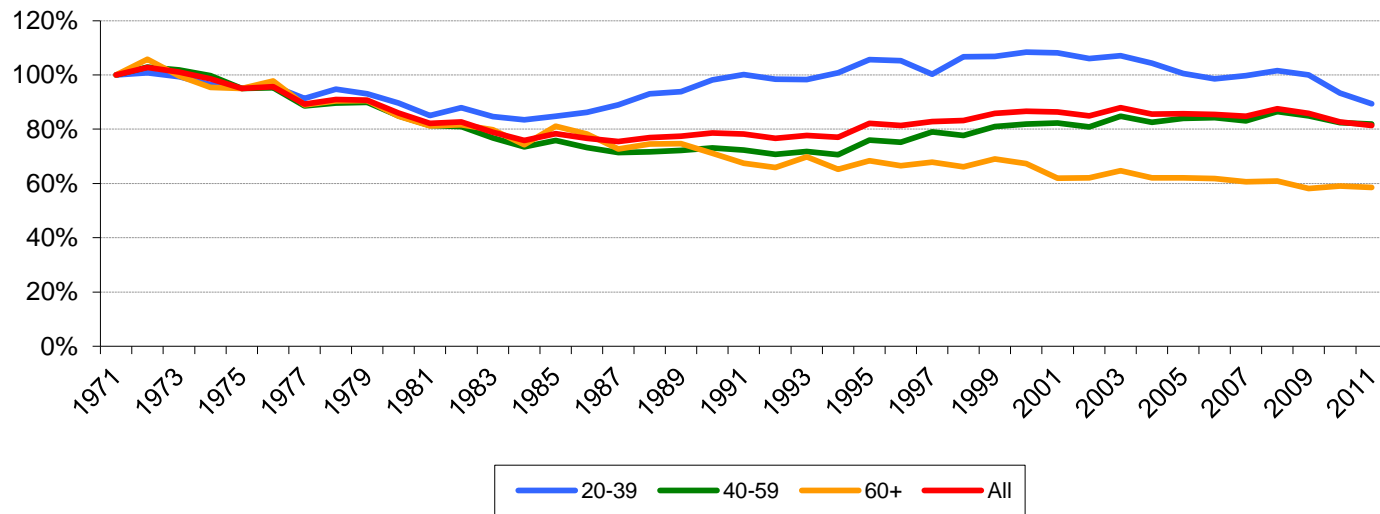


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Potential Drivers to Pricing Changes

- Trends... does the mortality component help?

Residual Deaths as % of 1971 (Both)








Source: ONS Cancer Registry



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Potential Drivers to Pricing Changes

- Trends... what about the cardio-vascular conditions

Condition	Trends
Heart Attack	 / 
Stroke	 / 
Coronary Artery Bypass-grafts	

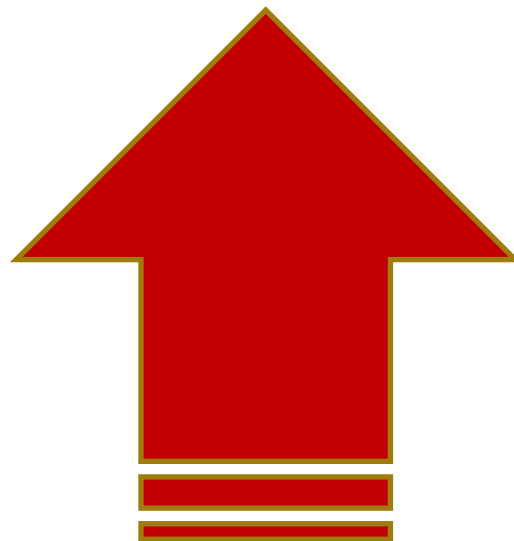


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Potential Drivers to Pricing Changes

- Trends... price impact

- Conclusion?



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Potential Drivers to Pricing Changes

- Any others...?

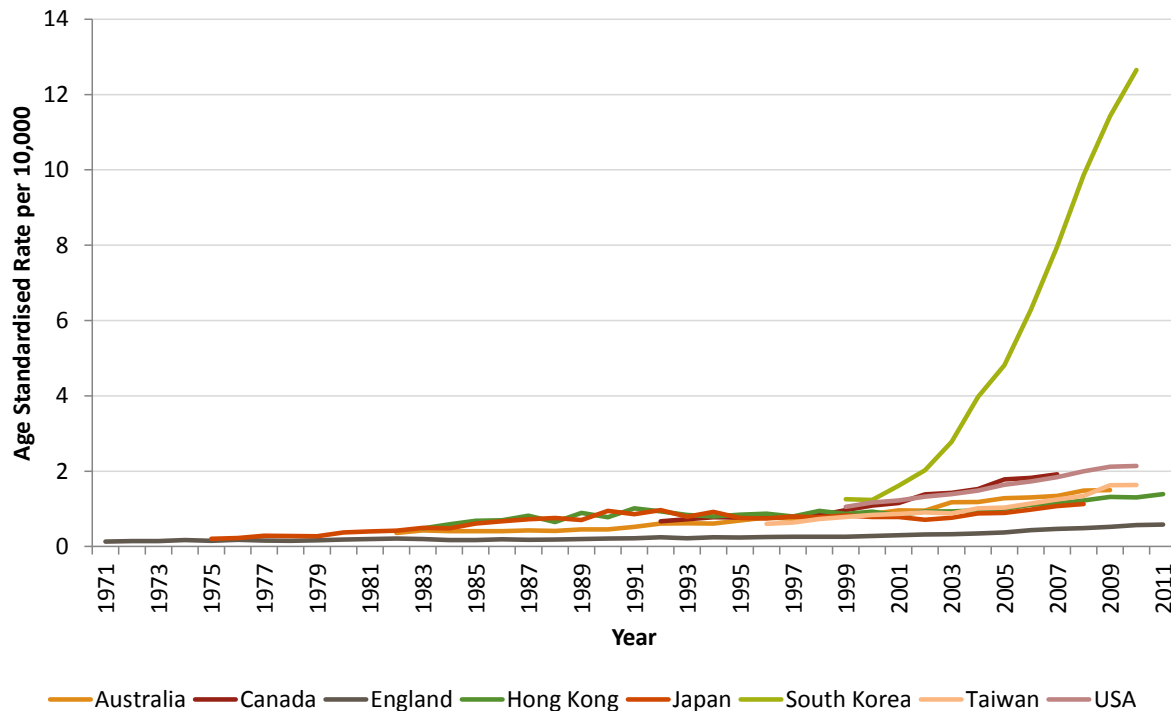
	Impact?
Distribution management	▼
BMI/alcohol	▲
Underwriting Developments	??
Persistency	??



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Lessons from Around the Globe

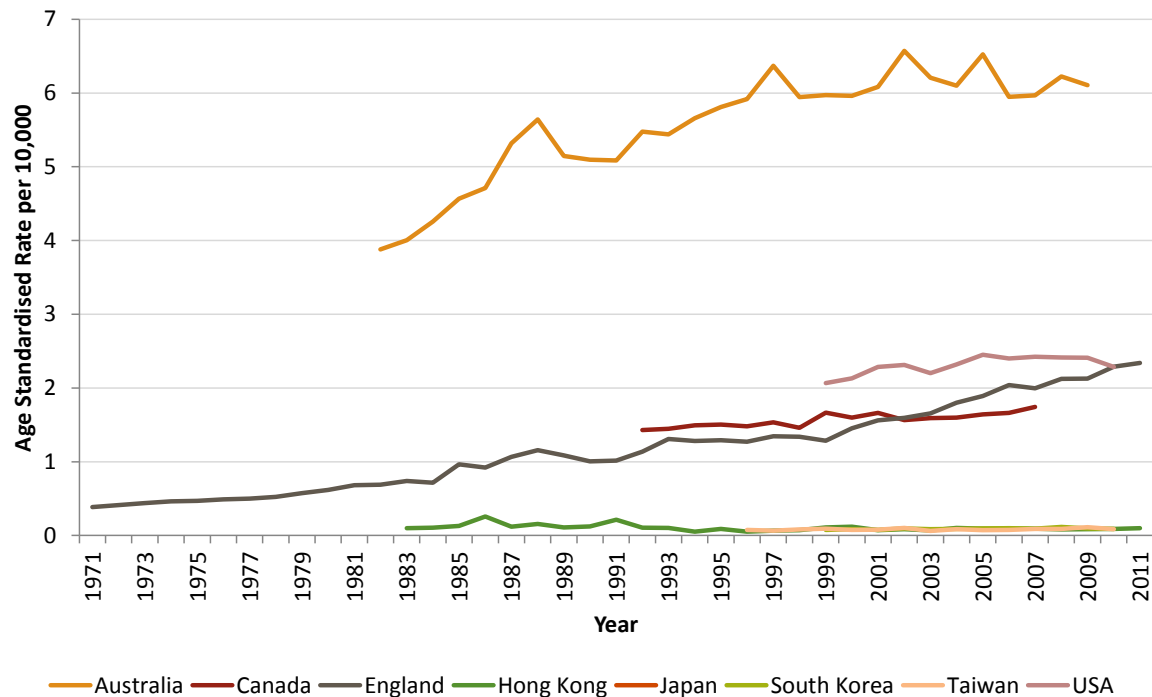
- Thyroid Cancer in Korea



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Lessons from Around the Globe

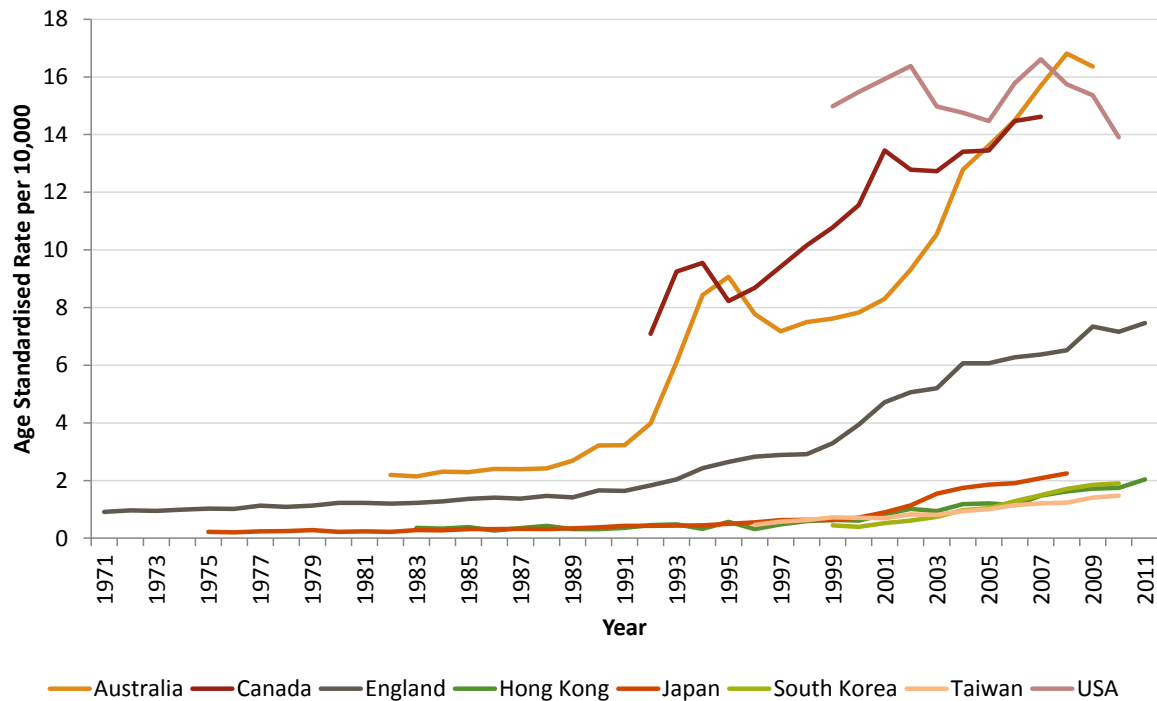
- Melanoma in Australia



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Lessons from Around the Globe

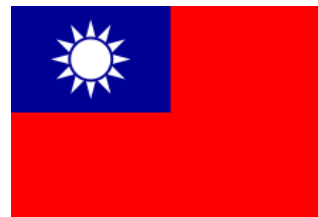
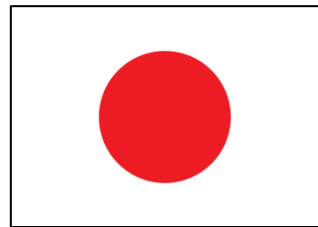
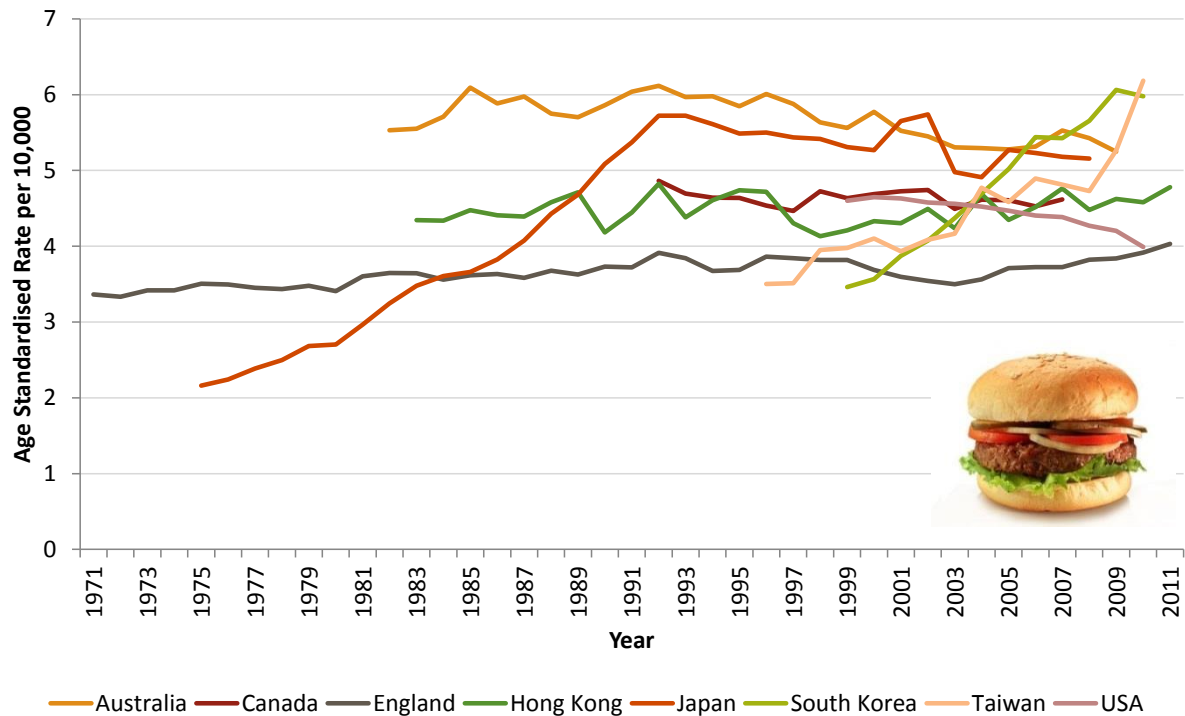
- Prostate Cancer in North America/Australia



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Lessons from Around the Globe

- Colorectal Cancer in Asia



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Summary

- Can prices get any lower?

It's a surprise
they've reduced
so much!

- Given the movements in declined claims
- And the increasing coverage/definition drift
- As well as general cancer trends

Still a risky
product

- Uncertainties relative to mortality pricing are still present
- Despite the growing volumes of data
- Should note what has happened around the world

Evolving

- Coverage is growing
- Need to be ready for any surprises
- Care required over definition creep and declined claims trends



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Summary

- Possible Conclusions

Pricing Discipline

- Ensure margins vs mortality are sensible
- Emerging experience is uncertain given complexity of select discounts and changing distribution landscape

Definition Maintenance

- Consider size related Thyroid cancer exclusions
- General exclusion of nano-sized cancers
- Tiered definitions

Understanding the Risks

- Internal Model Calibration
- More research (working parties etc)



Questions

Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.



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