



Institute  
and Faculty  
of Actuaries

# What do actuaries do now, and what will they do in the future?

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## Agenda

1. Introduction
2. International
3. Wider Fields
4. Conclusion



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## Introduction

What is an actuary?

In the UK defined by the IFoA Strategy June 2011

“Practical, mathematically skilled, rigorous and regulated risk professionals operating within a professional code as sanctioned by Royal Charter.”



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2

## Introduction

What is an actuary?

Common themes in others (CAS / SOA / ASSA / Australia):

- Mathematical
- Risk
- Analysis
- Practical
- Public Interest



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3

## Introduction

What is an actuary?

Unique to ASSA / Australia:

- Wide range
- Operational management
- Economic
- Business problems

## Introduction

Actuary means different things to different locations and sectors.

Internationally markets are at different levels of maturity and regulation, and with different regulatory cultures.

Does increasing globalisation give us options to use exemplars of actuarial activity from one region to open up opportunities in another?

Is there an opportunity to apply well known techniques from developed countries to new markets, and innovative techniques from new markets to developed countries?

## International

Leading:

- Australia
- South Africa

Developing:

- Africa, Asia, Eastern Europe, Brazil

## International

Developing:

- Movement from agriculture to manufacture and service
- Improved healthcare, education, longevity
- Wealth creation
- Protection of assets
- Protection of life

## International – Insurance premium growth

2001 - 2010

Developing Markets:

- Life growth 12.6%
- Total global share up from 5% to 14%
- Non life growth 9.3%
- Total global share up from 7% to 16%

• Source – Swiss Re Economic Research and Consulting



8

## International

2004 – 2011

GDP:

Brazil + China + Indonesia + India = USA + UK

Developing GNI per capita:

10 times larger in USA / UK

Growth 3-5 times over period

• Source – Worldbank



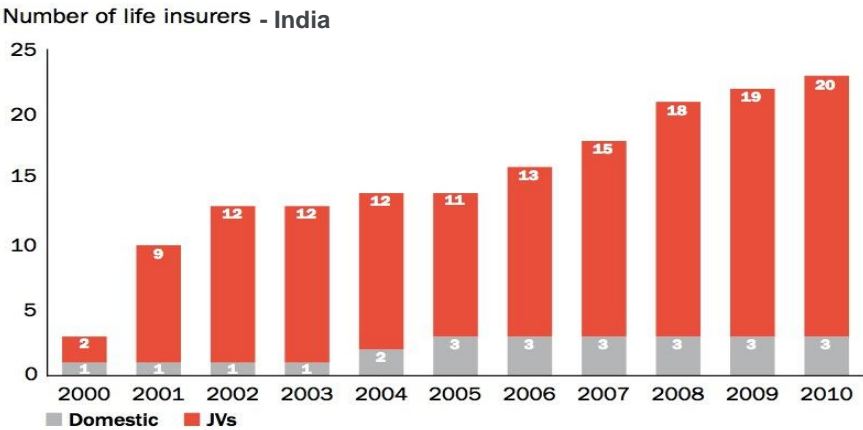
9

International – Markets opening up



10

International – Markets opening up

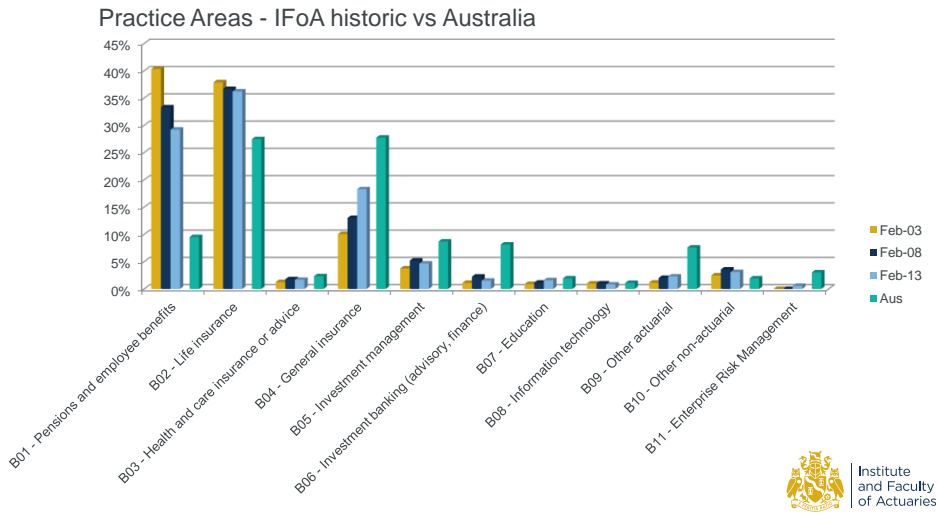


Source: Towers Watson



11

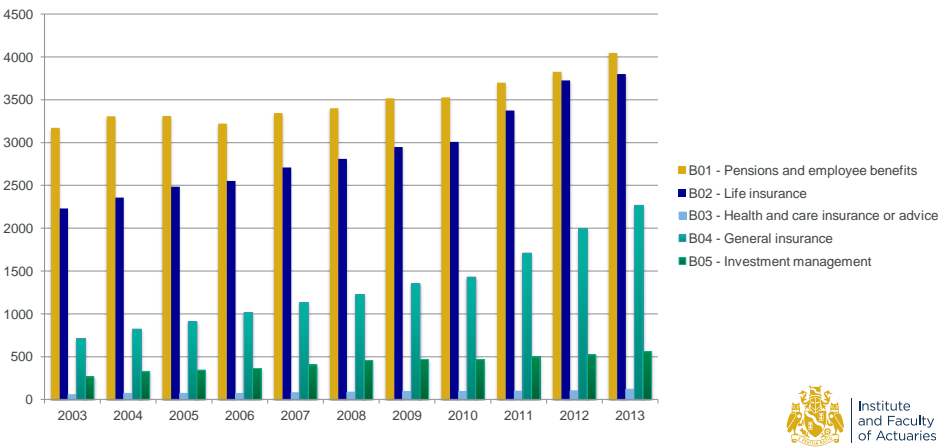
International



12

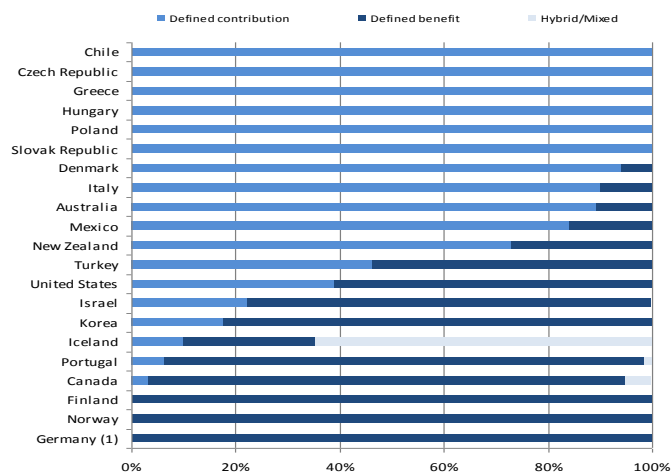
The “Don’t Panic” slide

UK IFoA members by major practice area



13

## International – Pensions



## Wider Fields

A state of mind?

- What do actuaries (and their organisations) assume?
- What do employers assume?



## Wider Fields

- Australia:

For instance, SOCOG called on actuaries to assist in one of the most comprehensive decision-making processes in its lead-up to the Sydney 2000 Olympics. A computer model was developed to evaluate offers made by competing broadcasters for the international television rights for the Games. In high-level negotiations requiring comparisons and judgment, the work of actuaries greatly assisted SOCOG to reach its final decision.

Actuaries Institute website – Career Information



16

## Wider Fields

South Africa:

- Roelof was working as director of corporate development at PayPal, which back in 2000 was a one-year-old e-commerce start up. One of the key issues was transaction losses.
- Roelof discovered that PayPal was using a non-matched approach. They were comparing a given month's losses to the same month's payment volume to estimate the loss rate. He implemented the chain ladder technique to build cumulative loss distribution functions to get a precise estimate of the problem.
- Fraud rates were four times higher than they had previously estimated and growing exponentially.



ASSA website, career paths for actuaries

17

## Wider Fields?

- UK:

Actuaries are becoming increasingly involved in banking. For example, some of the leading insurance companies now have their own established banking operations, with actuaries filling some of the senior executive positions for finance and risk. The leading retail banks are also increasingly employing actuaries, as they recognise that the longer term approaches advocated by actuaries can add value to their businesses. As the insurance and banking markets continue to converge, we can expect to see the demand for actuaries within banking fields continue to grow.

IFoA Website – Where do actuaries work



18

## Wider Fields

- New qualifications
- China
- Salaries



19

## Wider Fields

“..qualification on its own has become less of a dominant factor”



Source - Acumen Resources for the Actuaries Institute



20

## Conclusion

- Expectations of an actuary often develop with markets
- Hard to shift expectations in mature markets
- Developing markets (often) develop wider opportunities
- Export of those opportunities back to mature markets
- Still plenty of traditional work in mature markets, slow growth / shrinkage
- Premium salary for the qualification at risk as actuaries compete against others in wider fields



21

Thank you



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