

The Actuarial Profession
making financial sense of the future

Life conference and exhibition 2010

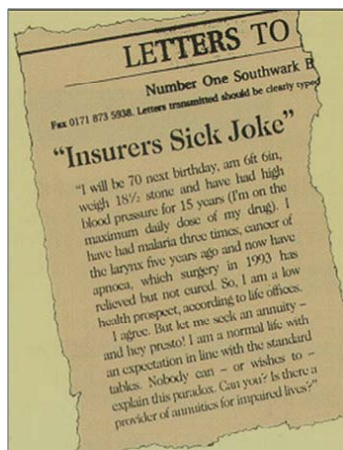
Niel Daniels - Daniels Actuarial Consulting and Juliette Duchassaing - CoE Longevity , PartnerRe

Do enhanced annuities damage the market?

7-9 November 2010

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Why enhanced annuities ?



Letter to FT, 11 February 1995

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I will be 70 next birthday...

...and have had high blood pressure for 15 years...

...and have had malaria 3 times...

...and cancer of the larynx...

...and apnoea.

So, I am a low health prospect, according to life offices. I agree.

But I would like to purchase an annuity – and here I'm a normal life with an expectation in line with the standard tables?

LETTERS TO

Number One Southwark B
Fax 0171 873 5038. Letters transmitted should be clearly typed

"Insurers Sick Joke"

"I will be 70 next birthday, am 6ft 6in, weigh 18½ stone and have had high blood pressure for 15 years (I'm on the maximum daily dose of my drug). I have had malaria three times, cancer of the larynx five years ago and now have apnoea, which surgery in 1993 has relieved but not cured. So, I am a low health prospect, according to life offices. I agree. But let me seek an annuity – and hey presto! I am a normal life with an expectation in line with the standard tables. Nobody can – or wishes to – explain this paradox. Can you? Is there a provider of annuities for impaired lives?"

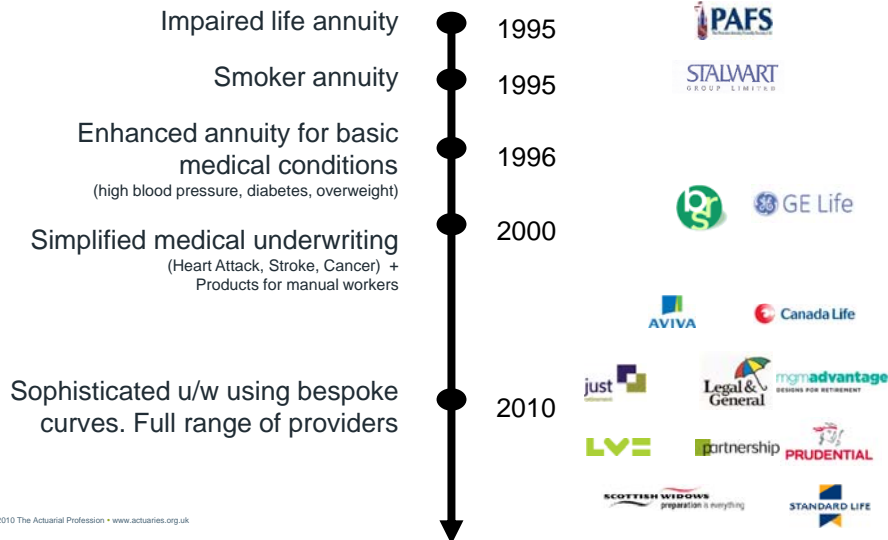
Agenda

- A brief history lesson: introduction of the open market option and growth of the non standard market
- Mortality differentials for open market annuities:
 - socio-economic/size/channel
- Types of non standard annuities:
 - lifestyles / impaired health / postcodes
- Pricing perspective:
 - the effect of the non standard market on residual standard mortality

A brief history lesson

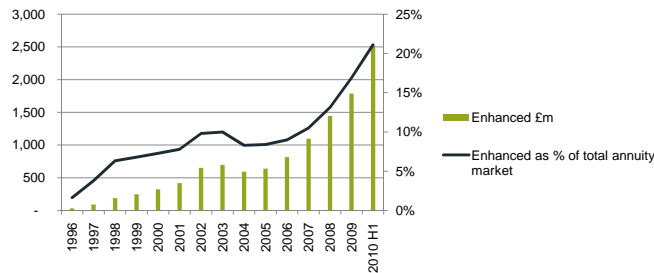
- Introduction of the open market option
 - Finance Act of 1978 gave vesting pensioners the right to take an Open Market Option
 - i.e. they could transfer their pension pot to another provider
 - But offices did not have to disclose this right to pensioners
 - So take up rate was low
 - CP106 (August 2001) made it mandatory to disclose a pensioner's options at least 4 months prior to retirement date
 - and again 6 weeks prior to retirement
 - Letter also pointed member to FSA for comparison rates

A brief history lesson



A brief history lesson

Sales [of enhanced annuities] over time :



- From 2000-2007, enhanced annuities were fairly static at 8-10% of total annuity sales
- They have since risen dramatically and in 2010 H1 made up 21.1% of total sales
- It is estimated that enhanced annuities could ultimately make up 40% of the market

Source - Towers Watson 2001 onwards, FSA returns for prior figures

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Mortality differentials for open market annuities

- Socio-economic group
 - Increasingly, socio-economic group (profession) is being used as a way of offering varying annuity rates
 - And often postcode is used as a proxy

Mortality differentials for open market annuities

- Size
 - Size is an indicator of socio-economic group
 - So rates should vary by size
 - But this is partly offset by efficiency gains on expenses
 - So, for many providers, large cases are often offered better terms
 - Also, most really small funds are not accepted by most Open Market offices ...
 - ... which makes for less variation in size in the Open Market
 - So size gives rise to less variation in rates than expected

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Mortality differentials for open market annuities

- Channel
 - Not explicitly used to vary price
 - Most Open Market annuity purchases are through IFA channel anyway. Recent ABI figures showed that IFA sales made up
 - 93% of total Open Market sales
 - 99% of enhanced annuity sales

Source : ABI quarterly insurance bulletins

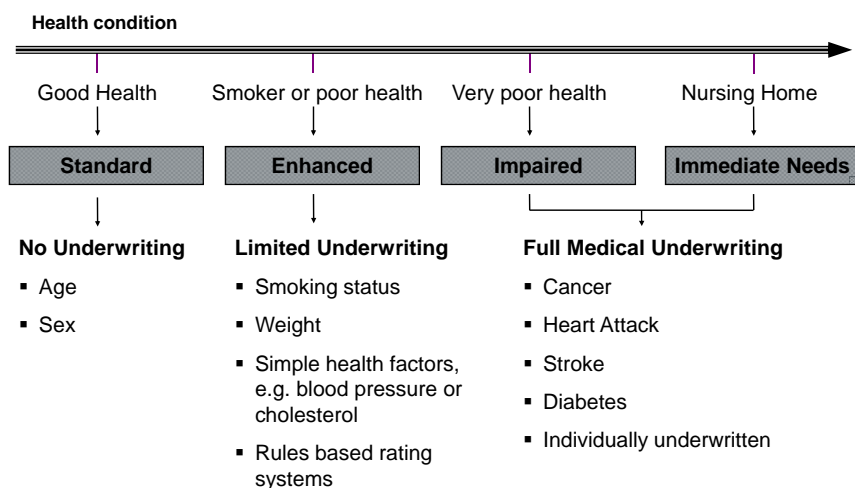
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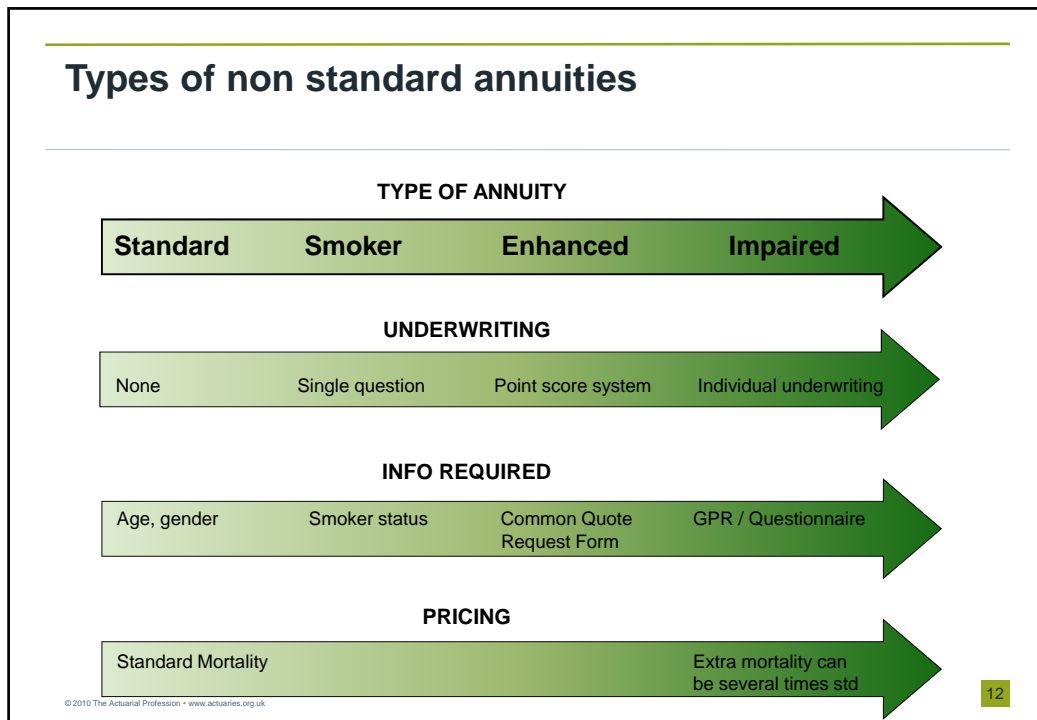
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Types of non standard annuities



Types of non standard annuities



Types of non standard annuities

- Lifestyles
 - Main example is Smoking (30% uplift is not unheard of)
 - But also Body Mass Index
 - Job type (manual workers can often get 5% more)
- Postcodes
 - Uplifts of 5-7.5% for particular postcodes
 - Postcode can imply health to some degree ...
 - ... but is mainly an indicator of socio-economic group

Types of non standard annuities

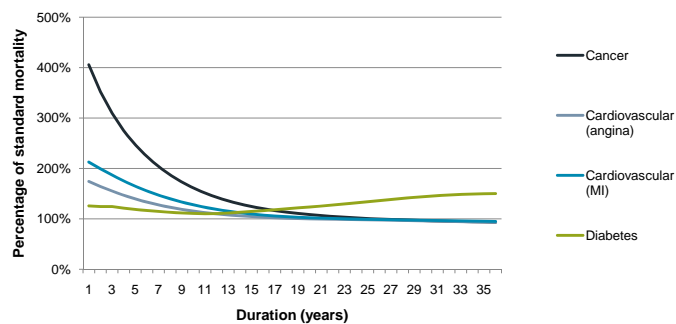
- Impaired health
 - Rates vary enormously according to
 - The condition
 - The stage
 - Duration since diagnosis

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Types of non standard annuities

- Non Standard mortality – some examples



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Pricing perspective – the effect of the non standard market on residual standard mortality

- The split of insured annuitants:

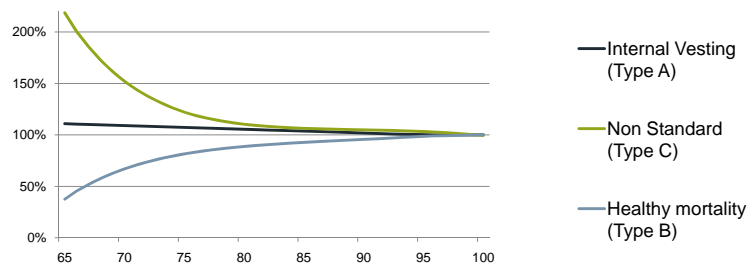
Type	Group	Shape	Socio Economic multiplier
A	Internal Vesting	Standard mortality	$Y > 100\%$
B	OMO – non enhanced terms	Healthy mortality	$X < 100\%$
C	OMO – enhanced terms	Non Standard mortality	
Total	All	Standard mortality	100%

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Pricing perspective – the effect of the non standard market on residual standard mortality

- The Internal Vesting shape (Type A)
- The Healthy mortality shape (Type B)
- The Non Standard mortality shape (Type C)

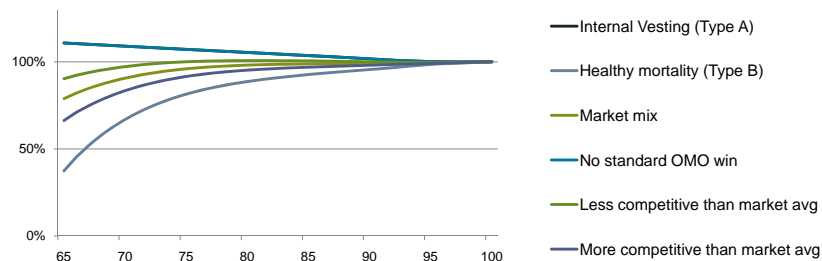


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Pricing perspective – the effect of the non standard market on residual standard mortality

- Residual Standard mortality



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Pricing perspective – the effect of the non standard market on residual standard mortality

- Risk of Misestimating the split between type A and type B within a portfolio. Examples:
 - If you think the mortality of your portfolio is not affected because you don't sell OMO products
 - If you can not identify in your portfolio the type A (internal vestings) and type B (healthy mortality) – results in errors in valuation / EV
 - If you are a reinsurer and you are not provided with the split of the business between type A and type B in the portfolio you are studying

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Pricing perspective – the effect of the non standard market on residual standard mortality

- Cost of misestimating the split between type A and type B within a portfolio. Example:
 - If we assume a company wins a share of standard OMO business that is 50% of market mix (i.e. company is less competitive than the market)
 - But if the company actually wins the same share as the market mix
 - The projected annuity outgo would be underestimated by around 1% in NPV terms

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Pricing perspective – the effect of the non standard market on residual standard mortality

- A final point :
 - The mix between Internal, Enhanced and OMO Healthy is varying over time
 - So the derivation of residual standard is not fixed but varies from year to year
 - Continual reassessment is essential!

Conclusion

- The presence of the enhanced market affects the mortality of residual standard annuities
- The residual standard mortality is affected by both the mortality and the volume of enhanced annuities
- It can make a material difference to the cost of a standard annuity
- It affects all providers – not just those that write enhanced annuities

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