

DRAFT
The Gender Directive
Age Discrimination ?
Free Market Pricing Issues

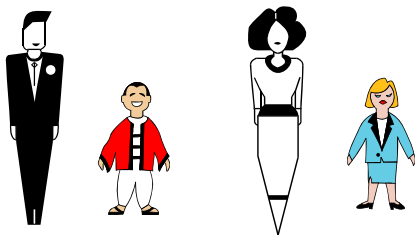
Nathan Williams/Nigel Carpenter
Friday 13th June 2008

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Free Market Pricing Issues

- Gender
 - An overview of the legislation
 - Some practical considerations
- Age Discrimination ?
- What next ?

Gender



Gender - Overview of Legislation

In a nutshell

You can only have different premiums for men and women if you've got the stats to prove it.

Applies to contracts entered into after April 5th 2008



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Gender - Overview of Legislation

Sex Discrimination (Amendment of Legislation) Regulations 2008

Bans Direct and Indirect discrimination in the provision of goods and services

The regulations permit discrimination between men and women in insurance provided:-

- differences in premiums and benefits are **proportionate**;
- gender as a risk factor is based on **relevant** and accurate actuarial and statistical **data**; and
- ensure the **relevant data** are compiled, **published** and regularly updated;

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Overview of Legislation

The key words are:-

Proportionate

Relevant data

Published

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HM Treasury guidance: Proportionate

"It will be for the courts ultimately to determine the meaning of 'proportionate differences'. "

"in the Government's view, the term 'proportionate' implies that there is some tolerance around the degree to which a differential may be held to be proportionate, and that it should be symmetrical above or below a data point, provided that it is fair and reasonable."

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HM Treasury guidance: Relevant Data

"The data relating to the "assessment of risk" should focus on the assessment of claims costs, based on claims frequencies and claims severities, including the future cost of current claims.

"...the ratio of male to female average costs per policy. The data should be broken down by age ranges not exceeding five years, with a single age range for ages 80 and above."

"It should be gross of reinsurance and net of any excess paid by policyholders. Loadings flowing from expenses, capital and solvency requirements, tax and tax allowances, or acquisition costs are not held to be relevant to the assessment of risk based on actuarial and statistical data relating to differences between men and women."

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HM Treasury guidance: Published

"Publication may be by way of a table or chart"

"should indicate the accident years reported."

"The published data should be reviewed and, if necessary, updated at intervals not exceeding three years."

"a high level of aggregation is required to condense extensive and complex information into a single table that will be intelligible to the layman."

"Insurers may wish to prepare an explanation for the benefit of individual policyholders wishing to discuss the relationship [ed. of the published data] with their own premiums and benefits."

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Practical Issues

- Regulations suggest a 1-way table
- Most insurers will be pricing using multi-variate techniques
- There may be an issue...

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Example of the issue

Made up but not unrealistic
one way published table

Accident Years 2001 - 2004

Age	F v M
17-20	0.70

Example: Alex Mitchell 18yr old female student nurse.

Alex, aware of published table, gets quote for £3,496.27 for a
5 year old 1.2L Fiesta
Student Nurse, living in Nottingham
1 year licence held
parked on the street

Shocked at the price she gets the same quote for a male which comes in at
£4,127.27.

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Alex does a few sums. $\text{£}3,496.27 / \text{£}4,127.27 = 0.85$ which is not equal 0.70 shown in the published table.

By Alex's reckoning her premium should be proportionate to male premiums and the published table ie her premium should be
 $\text{£}2889.23 = \text{£}4,127.27 * 0.70$

Alex pursues a legal case, claiming Gender discrimination under the EU Gender discrimination act.

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Example of the issue

The published table, being a one-way summary of historic data, does not just show the effect of gender by age.

It also shows the effect of other risk factors that are correlated to gender and age.

For example women tend to driver smaller cars and drive fewer miles than men.

Typical values might by 3 car groups lower and 1000 miles less

This contributes to females appearing to be lower risk than men but is actually a function of mileage and vehicle size is as well as gender.

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The implications

Motor premiums are determined from multivariate models.

A one-way summary of Gender data will not illustrate the true effect of Gender on risk.

The EU Gender table as outlined in HM Treasury guidance may not be proportionate to actual premiums charged

This is an industry wide issue, affecting all motor insurers.

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The implications

Following tables show premiums, using the Alex example at age 18, from a range of insurers.

Note that none of the insurers ratio of Female to Male quotes is close to ABI figure of 0.35.

This would not satisfy the Treasury's interpretation of "Proportionate" as there is not a symmetric range of ratios above and below the published value.

Alex Quote: 18 Year Old

	Male £	Female £	F v M
Kwik-Fit	2,744.75	1,718.95	0.63
Endsleigh	3,187.64	1,730.55	0.54
AA	3,431.90	1,866.35	0.54
Policies 4 Less	3,473.87	1,925.42	0.55
Motorinsurance.co.uk	3,473.87	1,925.42	0.55
ibuyco	3,811.43	2,056.39	0.54
yesinsurance.co.uk	3,706.42	2,170.34	0.59
Bradford & Bingley	3,925.77	2,238.71	0.57
Budget	4,002.01	2,282.18	0.57
SABRE FULL CYCLE	4,112.56	2,139.40	0.52
Barclays	6,037.99	6,455.99	0.80
AIG	4,676.48	2,433.55	0.52
My Motor Quote	3,856.75	2,099.05	0.54
Norwich Union Direct	6,192.99	4,958.00	0.80
More Than	4,127.47	3,496.27	0.85
Average	4,188.17	2,571.45	0.61

ABI published value 0.35

These numbers are taken from an aggregator website and are for illustration only.

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The implications

Similarly at age 25.

Note that none of the insurers ratio of Female to Male quotes is close to ABI figure of 0.60.

This would not satisfy the Treasury's interpretation of "Proportionate" as there is not a symmetric range of ratios above and below the published value.

Alex Quote: 25 Year Old

	Male	Female	F v M
Endsleigh	421.91	368.03	0.87
AA	496.17	437.30	0.88
Policies 4 Less	574.43	448.75	0.78
yesinsurance.co.uk	508.95	407.73	0.80
Bradford & Bingley	535.74	421.96	0.79
Bullseye Private Car	422.97	367.99	0.87
Marks and Spencer Insurance	427.69	370.47	0.87
Zurich (Solutions)	587.12	467.33	0.80
esure	480.26	421.35	0.88
L.V=	828.88	692.54	0.82
Highway	594.18	544.45	0.92
Quinn-Direct	705.03	668.38	0.95
Norwich Union Direct	921.00	770.00	0.84
More Than	624.43	584.34	0.94
Average	580.77	497.19	0.86

ABI published value 0.60

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Conclusion

• Publishing a table that summarises the true gender effect as determined from a **multivariate** analysis of the underlying data may give a better fit to actual premiums.

• ABI view is that a multivariate approach satisfies the Treasury Guidance

• Table must be published by 30 June 2008

• No easy answer!

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Age Discrimination ?



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Age Discrimination ?

Some points of view:

- 'You wouldn't decline a risk on the grounds of race or disability so why should you decline a risk on the grounds of age ?'
- 'The market works effectively there are loads of companies quoting for older (and younger) people'
- 'Many companies prefer to quote for low risk drivers; this means it is harder to get insurance if you're a high risk driver. Why should older people be treated any differently from any other high risk group ?'

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Age Discrimination? - What's the issue?

The two main problem areas are:-

Motor : mainstream companies may decline to quote after a certain age - 79 is typical

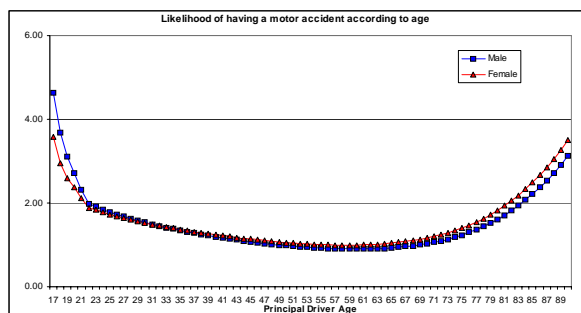
Travel : mainstream companies tend to stop quoting at 60-65ish
: medical conditions become more prevalent

Household is not a problem : many companies give discounts for older people

There are also issues in life & health insurance and banking
(eg refusing credit on the grounds of age)

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Age Discrimination ? Age is a key factor



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Age Discrimination? What's happening?

- Recent legislation outlawed discrimination on the grounds of age in the workplace
- Currently no legislation to prevent discrimination on the grounds of age in the provision of goods and services
- Government Equalities Office is looking at how to implement legislation
- Treasury has set up working group to look at the issues in financial services Insurance Industry (ABI)
 - Age Lobby (Help the Aged / Age Concern)
 - Institute of Actuaries
 - National Youth Council
 - Others

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Age Discrimination? The current situation...

- GEO have so far indicated that the Government will not be looking to
 - have a proportionality test a la gender
 - require companies to publish an actuarial table
- Legislation may
 - require companies to quote
 - remove step changes (eg premiums for <60, 61-65, 66-70)
 - give a right to legal challenge : an individual would have the right to require companies to prove a premium actuarially

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Age Discrimination ? Some issues

- Where do you get the actuarial data from if you don't already insure a particular age group ?
- Small amounts of data will mean large standard errors which will mean premiums vary hugely between companies.
- How will it effect specialist insurers eg SAGA
- Removing step changes from Travel may require expensive system changes ; small niche players may withdraw
- How to deal with young people in high performance cars ?
- Stifle innovation eg MORETH>N Drive Time, NU PAYD
- Where does this leave optimisation ?
- Will insurance pricing become cost plus stifling competition ?

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Age Discrimination ?

- What do you think ?



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Where next ?



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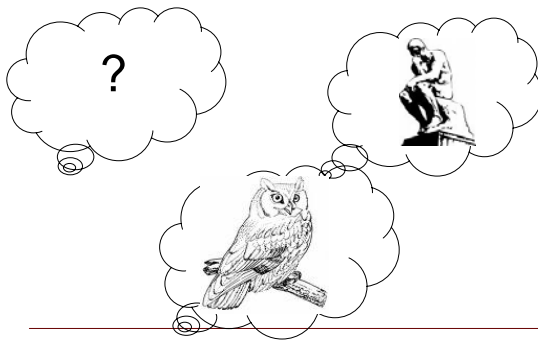
Want to get involved?

- Free Market Pricing Issues Working Party

•Chairman : Camilla Bennett

•[can we find a picture of Camilla ? Try her secretary ?]

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