

# The draft EU Directive on equal insurance premiums for men and women

## *Executive summary*

In November 2003, the European Commission presented its proposal for a Directive relating to the equal treatment of men and women in the access to and supply of goods and services. The draft Directive specifically requires the use of unisex premium rates in insurance.

This briefing statement summarises the rationale provided by the Commission for the proposed measure, analyses the evidence for using sex as a rating factor and considers the likely practical effects of the proposed measure in an Irish context. The purpose of the statement is to inform a wider debate about the proposed measure.

The Commission points out that current practice varies across the Member States. In France, for example, annuities are priced on a unisex basis, while, in several countries, including the UK and France, unisex rates apply to private health insurance. In Sweden, there are unisex premium rates for motor insurance.

The Commission states that “*studies show that sex is not the main determining factor for life expectancy...Sex is at the very best a proxy for other indicators of life expectancy...The inference...is that the practice [of using sex as a rating factor] is based on ease of use rather than real value as a guide to life expectancy.*” The Commission does not comment on differences in the patterns of morbidity and motor accidents for men and women.

In fact, there is substantial evidence to demonstrate that, next to age, sex is the most important risk factor for life expectancy. Men have higher mortality rates than women at all ages, even before birth. The difference between the sexes remains even when other factors, such as marital status, occupation, socio-economic status and smoking habits are taken into account. There are differing views in the scientific literature as to the causes of the sex differences in mortality, but, whatever the causes, sex remains a significant predictive factor for life expectancy.

Sex is also a significant risk factor for disability and, at young ages, for motor accidents. Other available rating factors cannot replace the use of sex as a rating factor for motor insurance and income protection insurance, as the sex differences in claims experience remain after other measurable factors are taken into account.

However, the Commission’s proposal goes on to say that even if there are statistical grounds for treating men and women differently, it is “*morally unacceptable*” to do so.

If mandatory unisex premium rates are considered desirable on social policy grounds, then, to some extent, the statistical evidence to support different premium rates may be considered to be irrelevant. However, the different claims patterns for men and women will remain relevant and will continue to impact on the insurance market. It is therefore important to fully consider the likely consequences of the proposed measure.

If insurers are required to charge unisex rates, they will need to make provision for the mix being unfavourable. Therefore, unisex premium rates are likely to be higher than the weighted average rates for the two sexes and, on average, policyholders will pay more for insurance than they do at present.

Unisex premium rates will add to the uncertainty faced by insurance companies and could therefore have implications for premium rates and insurer solvency. Some insurers may choose to withdraw from the market or to curtail their product offerings. This is particularly likely in the annuity market.

The introduction of unisex annuity rates is likely to increase the aggregate cost of pensions and is therefore likely to have an adverse effect on overall pension savings. On the other hand, the introduction of unisex premium rates would eliminate the apparent inequality in defined contribution pension schemes where either the contributions are the same for men and women, but the resulting benefits are not, or, alternatively, different rates of contribution are paid in order to fund equal levels of benefit.

The annuity market is likely to be distorted, in particular, by selective purchasing on the part of defined benefit schemes. However, the draft Directive is inconsistent with the existing Council Directive 1986/378 on the equal treatment of men and women in occupational social security schemes and it might therefore not apply to annuities offered to such schemes. It is not clear where PRSAs would fit in this scenario.

Unisex rates for motor insurance could lead to an increased number of accidents, since insurance may become more affordable for young male drivers who have a high risk of accidents and less affordable for young female drivers who have a lower accident risk.

The implications of the draft Directive for reinsurance, cross-border insurance business and data requirements for the prudential supervision of insurers need to be considered.

Finally, if this Directive is implemented, it is possible that similar measures might be proposed in future in relation to the use of age and/or health status as insurance rating factors. This would mean that insurance premiums would effectively be “community-rated” i.e. the same premium rate for all, regardless of age, sex or health status. This would likely destroy commercial insurance provision.

## 1. Introduction

- 1.1 In Ireland, currently, men and women pay different premium rates for life assurance, income protection insurance, annuities and motor insurance. In some countries in the EU, there are also different premium rates for health insurance, but, in Ireland, health insurance is “community-rated”<sup>1</sup>.
- Women generally pay less for life assurance, but more for annuities, than men of the same age, because their life expectancy is greater.
  - Young women generally pay less for motor insurance than young men, because they are involved in fewer and less costly accidents.
  - Women generally pay more than men for income protection insurance, because rates of disability are higher for women than for men.
- 1.2 In November 2003, the European Commission presented its proposal for a Directive relating to the equal treatment of men and women outside the workplace. The proposal is based on Article 13 of the Treaty on European Union (which allows the Community to take measures to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation).
- 1.3 The draft Directive covers the access to and supply of goods and services. It deals specifically with the issue of insurance premiums that are differentiated by sex. Article 4 of the draft Directive reads as follows:
1. *Member States shall ensure that the use of sex as a factor in the calculation of premiums and benefits for the purpose of insurance and related financial services is prohibited in all new contracts concluded after [the second anniversary of the date the Directive comes into force].*
  2. *Member States may defer implementation of the measures necessary to comply with paragraph 1 until [six years after date referred to in paragraph 1] at the latest.*
- In that case, the Member States concerned shall immediately inform the Commission. They shall compile, publish and regularly update comprehensive tables on the mortality and life expectancy of men and women.*

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<sup>1</sup> i.e. everyone pays the same premium, regardless of age, sex or health status

- 1.4 The draft Directive constitutes a social policy measure that conflicts with the commercial pricing of insurance. This briefing statement aims to consider the practical effects of the proposed measure, whilst taking an impartial view of this inherent conflict.
- 1.5 The purpose of the statement is to inform a wider debate about the proposed measure. The statement:
- summarises the rationale provided by the Commission for the prohibition on using sex as a rating factor in insurance
  - analyses the use of sex as a rating factor in the context of risk classification methods used in insurance
  - considers the likely practical effects of the proposed measure in an Irish context and
  - considers the possible implications in relation to other rating factors.

## **2. Summary of the Commission's arguments in relation to insurance**

- 2.1 The Commission notes that different premium rates apply to men and women in various parts of the insurance market, but especially in life, health and motor insurance, as well as in the calculation of annuities. This is due to variations in average life expectancy as well as different patterns of behaviour (particularly in motor insurance) and consumption (in health insurance).
- 2.2 However, the Commission points out that practice varies across the Member States. In France, for example, annuities are priced on a unisex basis. In several countries, including the UK and France, unisex rates apply to private health insurance. In Sweden, there are unisex premium rates for motor insurance.
- 2.3 The Commission states that:
- *“Studies show that sex is not the main determining factor for life expectancy”.*
  - *“Other factors have been shown to be more relevant, such as marital status, socio-economic factors, employment/unemployment, regional area, smoking and nutrition habits.”*
  - *“Lifestyle...has a significantly higher impact on individuals' life expectancy than sex.”*
  - *“Studies that have tried to remove lifestyle, social class and environmental factors from the equation have shown that the difference in average life expectancy between men and women lies between zero and two years.”*
  - *“Sex is at the very best a proxy for other indicators of life expectancy.”*
  - *“The inference...is that the practice [of using sex as a rating factor] is based on ease of use rather than real value as a guide to life expectancy.”*
- 2.4 Although the Commission does not similarly comment on differences in the patterns of morbidity and motor accidents for men and women, it concludes, for all forms of insurance, that the separation of men and women into different risk pools leads to an *“unjustified difference of treatment and a resulting disadvantage for one sex or the other.”* ... *“...in the past, it was not uncommon for employers to argue that they were reluctant to employ women of child-bearing age as there was a risk that they would be absent from work for periods of maternity leave...While this is statistically true, it is clearly morally unacceptable as a reason for a difference of treatment of women and men in the labour market and the legislator has acted to prohibit such behaviour. The same argument holds true in the field of insurance.”*

### **3. Risk classification in insurance**

- 3.1 Before specifically considering the use of sex as a rating factor, it is useful to consider the purpose and practice of risk classification and underwriting in insurance.
- 3.2 Risk classification and insurance underwriting are the means used by insurers to determine appropriate prices for the risks that they undertake, so as to ensure that their business is soundly based and is not exposed to risks which could jeopardise solvency. Risk classification uses predictive characteristics to provide a general pricing structure. The underwriting process then seeks to determine how closely each individual applicant fits that structure; if an individual has characteristics that differ significantly from the average for the relevant category, the underwriter may set a specific premium for that risk or may decline to provide cover.
- 3.3 How are risk classification factors arrived at? As stated in the American Academy of Actuaries booklet “Risk Classification - Statement of Principles”<sup>2</sup>:
- “There often is not a clear-cut optimal set of characteristics. Over time, in a perfectly competitive market, the optimal set of characteristics tends to emerge through the competitive mechanism. However, in practice, perfectly competitive markets are seldom achieved and the risk characteristics commonly used reflect both observed fact and informed judgment.”*
- 3.4 Issues relevant to the choice of risk classification factors include:
- Whether relevant data (e.g. mortality, morbidity or accident data) is available for a particular risk factor.
  - The cost of using a particular risk factor (including the cost of classifying individual risks into the relevant categories, the cost of the analysis required to set appropriate premium rates for each category and the cost of monitoring claims experience within each category).
  - Whether it is practical to ascertain and verify a particular risk factor and whether there is a risk of manipulation by the applicant
  - Whether the use of a particular risk factor is socially acceptable.
- 3.5 Further explanation of the need for risk classification and the considerations that apply to the design of a risk classification system in practice can be found in the American Academy of Actuaries booklet previously referenced.

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<sup>2</sup> <http://www.actuary.org/pdf/asb/appendices/risk.pdf>.

## **Sex as a rating factor for mortality risk (i.e. for life assurance and annuities)**

- 3.6 The Commission states that sex is not the main determining factor for life expectancy and is, at best, a proxy for other indicators.
- 3.7 In fact, age is by far the most important risk factor for life expectancy, but sex is also significant. Men have higher mortality rates<sup>3</sup> than women at all ages, even before birth<sup>4</sup>. In Ireland, the overall (age-standardised) ratio of male to female mortality rates is approximately 1.5 (i.e. the male mortality rate is 50% higher than the female rate)<sup>5</sup>. There is a distinction between cause and effect: there are differing views in the scientific literature as to the causes of the sex differences in mortality, but, whatever the causes, sex remains a significant *predictive* factor for mortality.<sup>6</sup>
- 3.8 The scientific literature suggests that a wide variety of variables, including both biological, environmental and behavioural differences, influence sex differences in mortality. The interplay between biological, environmental and behavioural factors is also important, as indicated by changes in the sex mortality differential over the course of the 20<sup>th</sup> century in particular. It is probably impossible to definitively determine the relative contribution of the various factors.<sup>7</sup>
- 3.9 Many of the behavioural differences that are known to influence mortality risk are already taken into account by insurers, either in the premium rating structure or in the underwriting process e.g. smoking, excess alcohol consumption, obesity, hazardous occupations and recreational activities. As an example, smoking may account for a significant proportion of the sex mortality differential for the general population but mortality experience for the insured population is analysed separately for smokers and non-smokers and there is still a significant difference between the sexes.

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<sup>3</sup> Mortality rates for men and women differ to a far greater extent than life expectancy. Life expectancy is an estimate of how long a person is expected to live, while mortality rates represent the probability of dying at a particular age.

<sup>4</sup> For example, Scottish data on perinatal death rates i.e. stillbirths and deaths in the first week of life shows typical male perinatal mortality of 10% to 20% higher than the female rate.

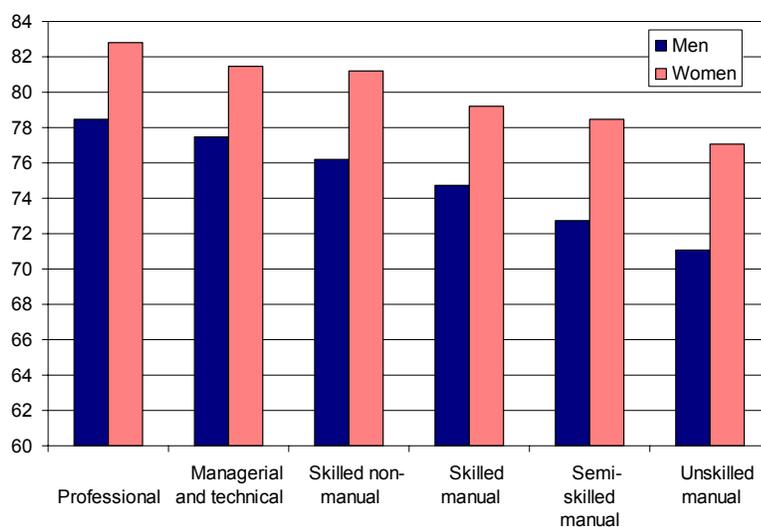
<sup>5</sup> calculated from Irish Life Table No. 13, 1995-1997, published by the Central Statistics Office

<sup>6</sup> There is an implication in the Commission's position that only proven causal relationships should be used in insurance rating, but for most risk factors a direct causal link would be difficult to prove; for insurance purposes, it is the correlation of risk factors and claims experience that is important.

<sup>7</sup> Blatt Kalben, B., "Why Men Die Younger: Causes of Mortality Differences by Sex", North American Actuarial Journal, Vol. 4. No. 4 ([http://www.soa.org/library/naaj/1997-09/naaj0010\\_6.pdf](http://www.soa.org/library/naaj/1997-09/naaj0010_6.pdf)); Lemaire, J., "Why do Females Live Longer Than Males?", Belgian Actuarial Bulletin, 2001 (<http://www.stat.ucl.ac.be/BAB/volume1/Vol1Lemaire.pdf>)

- 3.10 Also when factors such as socio-economic grouping and region are taken into account, there is still a significant mortality difference.
- 3.11 For example, the tables in Appendix 1, based on regional data for England and Wales, demonstrate that the difference in mortality for men and women is much greater than regional mortality differences. Tables 1 and 2 show the highest and lowest regional mortality rates for men and women and the ratios of the highest regional rates to the lowest regional rates. Table 3 shows the ratio of male to female rates for each region and age group. The ratio of male to female rates exceeds 150% for practically all age-groups and regions except for children and at the very highest age group. By contrast, the difference between regions is much less, the ratios being typically around 130% for both sexes for most age-groups and regions.
- 3.12 In relation to socio-economic factors, the chart below shows that the difference in male and female mortality is apparent in all socio-economic categories.

**Chart 1 – Life expectancy by social class, UK, 1997 - 1999**



Source: UK Office of National Statistics

- 3.13 While marital status is a predictive factor for mortality, the difference in mortality rates for single and married men and women found in most studies is not as significant as the mortality difference for men and women.<sup>8</sup> Moreover, even when marital status is taken into account, the mortality difference between men and women remains significant. For example, a Swiss Re study<sup>9</sup>, using mortality data for England and Wales, found that the ratio of male to female mortality rates

<sup>8</sup>Wilson C. and Oswald A., “How Does Marriage Affect Physical and Psychological Health? A Survey of the Longitudinal Evidence”, Warwick University, 2002 (<http://www2.warwick.ac.uk/fac/soc/economics/staff/faculty/oswald/wilsonoswaldmarriagejan2002.pdf>)

<sup>9</sup> Swiss Reinsurance Company, 2004, “The sex mortality differential”

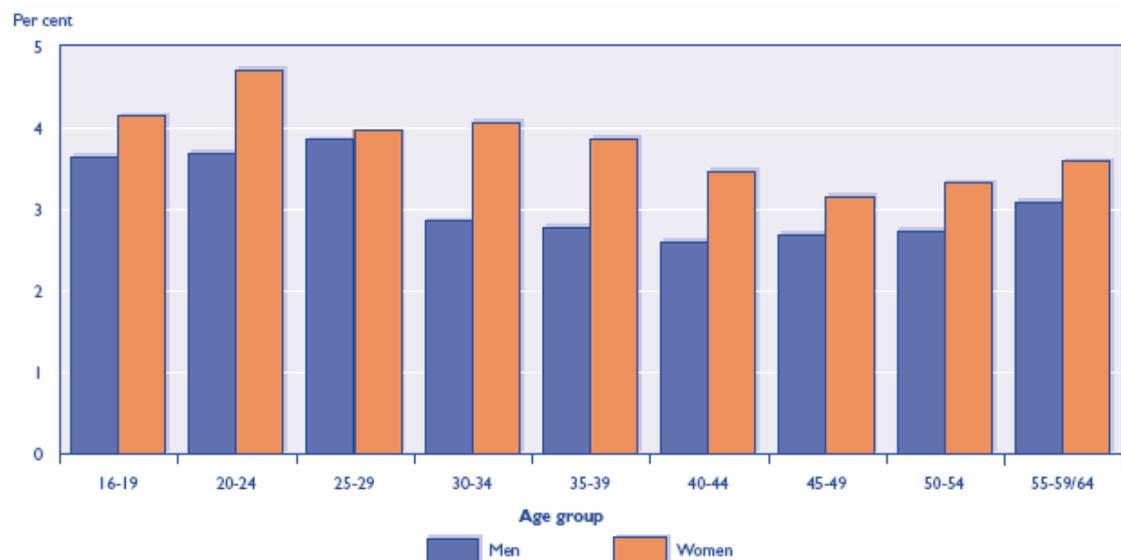
was 1.6 for both single and married people, 1.5 for the widowed and 1.8 for the divorced.

- 3.14 In practice, life assurance companies cannot use region as a rating factor because individuals may move from one region to another during the course of their lifetime (the position is different for motor insurance, where the policy is renewed each year). Similarly, there would be difficulties in using marital status as a rating factor, since an individual's marital status may change over time. While factors such as socio-economic status and income clearly influence mortality risk, it would not be socially acceptable to differentiate premium rates by socio-economic class or by income level.

### Sex as a rating factor for income protection insurance

- 3.15 Sex is used as a rating factor for income protection insurance in the UK and Ireland because rates of sickness absence are significantly higher for women than for men, as illustrated by the chart below.

**Chart 2 - Sickness absence rates by age group and sex, UK, Autumn 2001**



Source: UK Office of National Statistics

3.16 The above chart relates to all sickness absence, including both short and long-term absences. For long-term absence due to disability, the differential between men and women is much more pronounced. Analysis by the Continuous Mortality Investigation Bureau in the UK of claims experience under income protection policies shows that, except for the age group 20-24, the sickness experience of women was higher at all ages than for men; in most of the categories analysed, the women's sickness rates were of the order of double or treble the men's sickness rates.<sup>10</sup>

### **Sex as a rating factor for health insurance**

3.17 In Ireland, private health insurance is, by law, community-rated i.e. for a given level of cover, the same premium rate applies to all adult insured lives, regardless of age, sex or health status. There is provision for a risk equalisation system to “even out” the impact of differences in risk profiles on the claims costs experienced by different insurers.

3.18 In other EU countries, sex may be used as a rating factor for health insurance, because patterns of illness and consumption of medical services differ for men and women.

3.19 Women have higher levels of morbidity and seek medical advice much more frequently than men, although, when pregnancy and childbirth are excluded, international evidence suggests that male and female rates of hospitalisation are not substantially different up to about age 50 and are higher for men thereafter.

**Table 1 – Physician contacts per annum, US, 1998**

<b>Age</b>	<b>Men</b>	<b>Women</b>
<5	7.1	5.9
5 – 14	3.6	3.0
15 – 44	3.2	6.0
45 – 64	6.0	8.4
65 – 74	9.4	10.9
75+	13.5	13.7

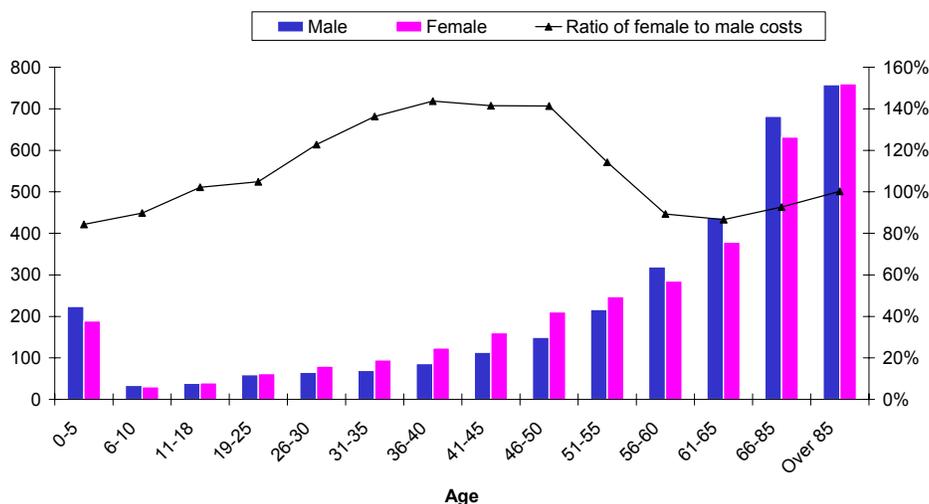
Source: “Health, United States”, 1999 and 2000, US National Center for Health Statistics

3.20 The chart overleaf illustrates the pattern of costs for private health insurance in Ireland, which suggests that overall costs are substantially higher for women up to age 55 and higher for men thereafter. The higher costs for women aged 20 – 45 are partly, but by no means wholly, attributable to costs associated with pregnancy and childbirth.

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<sup>10</sup> CMIB Report No 7., 1984, referenced in the report of the Joint Working Party on Discrimination in Insurance and Pensions submitted to the Faculty of Actuaries on 21<sup>st</sup> March 1988.

**Chart 3**  
**Irish private health insurance – Claims costs per insured person (1994/95)**



Source: Presentation to an SOAI conference, 1996

### Sex as a rating factor for motor insurance

- 3.21 In Ireland, motor insurance is rated using a number of rating factors including age, sex, marital status, region, age of vehicle, type/engine size/value of vehicle, type of driving licence (full or provisional), years' claims-free driving. Insurance companies may also use other rating factors such as occupation, previous driving convictions, penalty points, etc.
- 3.22 All the major Irish motor insurers use a statistical technique called “generalised linear modelling”, which facilitate a “multi-way” analysis of claims data. That is, all the rating factors are analysed simultaneously, so that the estimated impact of each factor is the pure effect of that factor (i.e. the effects of all the other factors are removed from it). Even when the effects of other rating factors are removed in a multi-way analysis, the pure effect of gender is still significant – men are poorer risks than women, with the difference being particularly pronounced at young ages.
- 3.23 This is borne out by accident data from the National Roads Authority which show that, whilst 15 to 24 year old males represent only 8% of the population, they account for 16% of drivers involved in fatal and injury accidents.
- 3.24 It is also supported by U.S. data, which shows that, even when the different mileage patterns for men and women are taken into account, accident frequencies are much higher for men than for women.

- 3.25 In Canada, although the motor insurance industry has extensively investigated alternative risk classification models, no satisfactory alternative has been found to replace sex as a rating factor.<sup>11</sup>
- 3.26 In insurance markets where the level of personal injury claims is high, the cost difference associated with higher male accident rates is accentuated; conversely, in markets where the cost of personal injury claims is lower, or is borne by a statutory scheme, unisex premium rates may apply.

### **Social policy grounds for unisex premium rates**

- 3.27 Notwithstanding the arguments put forward by the Commission in relation to life expectancy, sex is a significant risk factor for many types of insurance, including life assurance and annuities, income protection insurance and motor insurance. This is the case even when other relevant factors, such as occupation and smoking habits, are taken into account.
- 3.28 However, having challenged the statistical grounds for different premium rates for men and women, the Commission goes on to say that even if there are statistical grounds for treating men and women differently, it is “*morally unacceptable*” to do so: “*Equal treatment for women and men is a fundamental right and the Commission believes that the freedom to set tariffs must be subject to that right.*”
- 3.29 If mandatory unisex premium rates are considered desirable on social policy grounds, then, to some extent, the statistical evidence to support different premium rates may be considered to be irrelevant. However, the different claims patterns for men and women will remain relevant and will continue to impact on the insurance market. It is therefore important to fully consider the likely consequences (direct and indirect) of the proposed measure.

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<sup>11</sup> Brown, R., “The Canadian Charter of Rights and Freedoms – Its Effect on the Canadian Automobile Insurance Industry, (<http://www.casact.org/pubs/proceed/proceed88/88163.pdf>)

## **4. The likely practical effects of unisex premium rates**

### **Consumer behaviour**

- 4.1 If premium rates do not take account of known risk factors, economic theory suggests that those in higher risk categories will buy more insurance, while those in lower risk categories may buy less or none (except in the case of a statutory or compulsory scheme). However, the impact of unisex insurance premium rates may vary depending on the product.

### **Life assurance**

- 4.2 For life assurance, even though the underlying risk for men and women is very different, in both cases the premium is small and the disadvantage in the event of death is very large. People who want life assurance may well be prepared to pay more than the true risk premium to get it. In practice, purchasers may not have much idea of the true risk premium.
- 4.3 As men have higher levels of life assurance coverage than women, unisex premium rates are likely to be higher than the average of current male and female rates; women will have to pay significantly more than at present, but men may not pay substantially less. However, a significant proportion of individual life assurance business is effected on a joint life basis and the current joint life premium rate will be closer to the corresponding unisex rate than would be the case for single life policies.

### **Annuities**

- 4.4 At the other end of the spectrum, an annuity is a form of insurance against living too long. Potential purchasers will weigh up the probability of living longer than the life expectancy provided for in the annuity rate and will purchase an annuity only if they consider this probability to be significant.<sup>12</sup>
- 4.5 In Ireland, many individual retirees have the option of transferring their pension savings to an Approved Retirement Fund (ARF), from which they may draw down income and/or capital as they wish, rather than purchasing an annuity. With an ARF, there is a risk that the fund could be exhausted before the retiree dies; however, because current annuity rates are typically perceived as very low, retirees may prefer to maintain their capital rather than exchange it for a lifetime income. In theory, unisex annuity rates would encourage male retirees to opt for ARFs, while female retirees might be more likely to purchase an annuity; in practice, the impact of unisex rates may be less significant than the perception that annuity rates are generally unattractive and the desire to preserve capital to bequeath to the next generation.

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<sup>12</sup> James E. and Song X., “Annuities markets around the world: money’s worth and risk intermediation; Mitchell O. and McCarthy D., “Estimating International Adverse Selection in Annuities”, North American Actuarial Journal, Vol. 6 No. 4

4.6 Defined benefit pension schemes have the option of either self-insuring the longevity risk in respect of retired members or reinsuring this risk by purchasing annuities. Given unisex annuity rates, defined benefit schemes may purchase annuities in respect of female pensioners, whilst self-insuring the longevity risk in respect of male pensioners.

4.7 The likely effect is that the mortality experience for unisex annuities will be much closer to female mortality experience than to the average mortality experience for men and women; as a consequence unisex annuity rates are likely to be closer to current female rates than current male rates.<sup>13</sup>

#### **Income protection insurance**

4.8 The proportion of women with individual income protection cover is much lower than for men. The removal of sex as a rating factor should reduce the cost of cover for women and increase the cost for men; therefore the level of take-up by women might increase somewhat.

#### **Private health insurance**

4.9 As regards private health insurance, in Ireland, a system of community rating already applies. In the absence of community rating, a requirement for unisex premium rates would possibly not be a particularly significant issue, as private health insurance is typically effected on a family unit basis; the total premium rate for a family would not be significantly different if unisex rather than gender-specific rates were used. This may explain why premium rates for private health insurance in the UK generally do not differentiate by sex, although there is no statutory requirement for unisex rates.

#### **Motor insurance**

4.10 With motor insurance rates, unisex rates will be higher than the rates currently available to women drivers and lower than the rates currently available to young male drivers. As a result, women may refrain from driving while some young men, finding insurance more affordable, may drive more. The effect could be an increased number of accidents, since high-risk drivers would be encouraged to drive while the class of drivers representing a lower risk profile would be discouraged from driving. The extent to which this occurs will depend on the level of unisex rates relative to current male and female rates; if unisex rates are close to current male rates, the increase in the number of high-risk drivers may not be significant, but in this scenario motor insurance will be less accessible than at present for young female drivers.

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<sup>13</sup> The UK Equal Opportunities Commission, in a letter dated 9/9/2003 to the European Parliament, expressed concern that unisex annuity rates might reduce the income from men's annuities, thus disadvantaging not only men but also those many women who depend on income derived from men, without benefiting women who hold annuities in their own right.

## Insurer response

- 4.11 If insurers are required to charge unisex rates, they will be concerned about the possible future mix of male and female business. They will need to make provision for the mix being unfavourable. Therefore, unisex premium rates are likely to be higher than the weighted average rates for the two sexes. Some policyholders will pay more, and some less, than they would have paid if they had been assessed as two separate risk categories, but, on average, policyholders are likely to pay more.
- 4.12 In addition, the requirement for unisex rates is likely to encourage insurers to try to attract business from the lower-risk category and avoid the higher-risk category, as this will improve their profitability and/or allow them to charge lower premium rates. An analogy can be drawn with the private health insurance market in Ireland, in which the mandatory community rating system provides an incentive for insurers to try to attract primarily younger and healthier people. As regards life insurance, women are, in general, considered to be under-insured, so increased marketing of life assurance to women could have a positive effect.
- 4.13 The requirement for unisex rates will give rise to additional risk for insurance companies. Some insurers may choose to withdraw from the market or to curtail their product offerings. This is particularly likely in the annuity market, which is, at best, marginally profitable at present, with usually only three or four companies competing at any one time. The result may be less competition, less providers, and annuity rates not being available for all ages.

## Montana experience

- 4.14 The experience in the State of Montana in the US provides an illustration of the possible impact of unisex premium rates on motor insurance. In 1985, Montana passed a law prohibiting the use of sex or marital status as rating factors for motor insurance. A 1987 survey of 12 leading insurers<sup>14</sup> found that all women drivers younger than age 25 had to pay substantially higher rates, as did young married male drivers. The table below shows the average rate changes for 23 year old drivers.

**Table 2 – Percentage change in motor insurance premiums following implementation of unisex rates in Montana**

	<b>Men</b>	<b>Women</b>
Age 23, single	27% - 28% reduction	18% -20% increase
Age 23, married	26% - 29% increase	56% - 59% increase

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<sup>14</sup> All-Industry Research Advisory Council, Unisex Auto Insurance Rating: How Auto Insurance Premiums in Montana Changed After Elimination of Sex and Marital Status as Rating Factors

## **5. Further considerations**

### **Solvency**

- 5.1 Unisex premium rates will add to the uncertainty faced by insurance companies and could therefore potentially increase the risk of insurer failure. This might need to be taken into account in the capital requirements set by insurance supervisory authorities. For life assurance, which is long-term in nature, potential solvency concerns will vary depending on whether business is written on guaranteed terms or reviewable terms. If business is written on reviewable terms, the likelihood that premium rates will need to be reviewed during the course of the policy may be higher than is currently the case.

### **Group insurance**

- 5.2 It is not clear how the draft Directive would apply to group life and income protection policies whereby employers purchase cover collectively for their employees. Generally, for such group policies, an average “unit rate” is struck based on the age, sex and occupations of the members of the group. For larger groups, past claims experience is also taken into account. The rate offered for any particular group is specific to that group and is set at the discretion of the insurer rather than on the basis of published rates; it is difficult to see how the insurer could in practice be prevented from implicitly taking into account any gender bias in the make-up of any particular group. On the other hand, in practice, rates tend to be market-driven and it is therefore questionable as to how important sex actually is as a rating factor.

### **Reinsurance**

- 5.3 The draft Directive may apply to reinsurers as well as direct insurers as it applies to *“the use of sex-based actuarial factors in the calculation of premiums and benefits in the insurance and related industries”*. If it doesn’t apply to reinsurance, then the potential arbitrage between direct insurers and reinsurers is an additional dynamic to be considered.

### **Cross-border insurance business**

- 5.4 Consideration also needs to be given to the possible impact of the draft Directive on Europe's ability to compete in international insurance markets. European insurers and, in particular, reinsurers, who write business outside the EU could potentially be placed at a disadvantage, relative to their non-EU counterparts, who will not be restricted to the use of unisex premium rates, unless the application of the Directive is confined to insurance business within the EU.
- 5.5 Similarly, EU insurers and reinsurers will be at a disadvantage in their home markets if their non-EU counterparts can transact business within the EU using sex-specific premium rates. As part of the Irish regulatory regime for community-rating in private health insurance, all insurers wishing to transact such business in Ireland must apply for inclusion on a statutory register of health insurance undertakings and are then subject to the community rating legislation.

A similar regime might be necessary to enforce the use of unisex rates by non-EU insurers and reinsurers who transact business within the EU, but this could be difficult to implement in practice.

### **Data collection**

- 5.6 The draft Directive does not seem to prohibit the collection of information on the sex of insured individuals nor the use of this information for reserving and risk management purposes. As it is likely that, following the implementation of Solvency II, insurers' capital requirements will be determined based on the profile of risks that they insure, insurers will need to collect this information, even if it cannot be used to determine the applicable premium rate.

### **Rewriting of existing life assurance policies**

- 5.7 The annual premium rates applicable to in-force policies will not have to change to a unisex basis, according to the terms of the draft Directive. However, men who have current life assurance policies will be able to obtain cheaper premium rates under new policies (subject to satisfying underwriting criteria with regard to their current state of health) and this is likely to lead to legitimate rewriting of business by intermediaries and other sales channels. This will increase insurers' expense costs and will further contribute to higher average insurance costs for policyholders; it may also impact adversely on insurers' solvency.

### **Impact on pension provision**

- 5.8 There is a perception at present that pensions are expensive. The effect of imposing unisex annuity rates is likely to be that the aggregate cost of pensions will increase, which will make persuading people to save for pensions harder.
- 5.9 On the other hand, the introduction of unisex premium rates would eliminate the apparent inequality in defined contribution pension schemes where either the contributions are the same for men and women, but the resulting benefits are not, or, alternatively, different rates of contribution are paid in order to fund equal levels of benefit.<sup>15</sup>

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<sup>15</sup> The Minister for Finance, in his 2004 Budget Speech, announced the Government's intention to proceed with the development of SPEARS, a defined contribution AVC scheme for the public service. The SPEARS proposal provides for the conversion at retirement of the accumulated fund to a pension using unisex rates. The application of unisex annuity rates to defined contribution schemes generally would be consistent with this proposal.

- 5.10 However, the proposed introduction of unisex premium rates is inconsistent with Council Directive 1986/378 on the equal treatment of men and women in occupational social security schemes<sup>16</sup>. This Directive recognises that different levels of benefit may be provided for men and women if this is necessary to reflect “actuarial calculation factors which differ according to sex.” As has already been noted, if annuities are priced on a unisex basis, the annuity market is likely to be distorted by selective purchasing on the part of defined benefit schemes.
- 5.11 It has been suggested that Council Directive 1986/378 may take precedence over the new draft Directive, in which case the requirement for unisex rates might not apply to annuities offered to occupational pension schemes. In Ireland, it is not clear where PRSAs would fit in this scenario.

### **Implications for other rating factors**

- 5.12 The draft Directive is based on Article 13 of the Treaty on European Union, which allows the Community to take measures to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation.
- 5.13 If this Directive is implemented, similar measures might be proposed in relation to the use of age and/or health status as insurance rating factors. In essence, this would represent “community rating” as is currently required for private health insurance in Ireland. However, the community-rated environment for private health insurance requires extensive regulation to sustain it, including prescribed minimum benefits and provision for a “risk equalisation scheme” to which insurers with a worse than average risk profile may be required to contribute and from which compensatory payments may be paid to insurers with better than average risk profiles.
- 5.14 A requirement for “community rating” or “universal” premium rates for insurance generally would likely destroy commercial insurance provision.

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<sup>16</sup> as amended by Council Directive 1996/97 ([http://www.europa.eu.int/eur-lex/en/consleg/pdf/1986/en\\_1986L0378\\_do\\_001.pdf](http://www.europa.eu.int/eur-lex/en/consleg/pdf/1986/en_1986L0378_do_001.pdf))

## **6. Conclusions**

- Notwithstanding the arguments put forward by the Commission, sex is a significant risk factor for many types of insurance, including life assurance and annuities, income protection insurance and motor insurance.
- Other available rating factors cannot replace the use of sex as an insurance rating factor, as the sex differences in mortality, morbidity and accident experience remain after other measurable factors are taken into account.
- Unisex premium rates will add to the uncertainty faced by insurance companies and could therefore have implications for insurer solvency.
- Unisex premium rates could have both positive and negative public policy effects. For example, insurers will be incentivised to sell more life assurance to women, who are currently, on average, under-insured; on the other hand, unisex rates for motor insurance could lead to an increased number of accidents, since insurance may be more affordable for young male drivers who have a high risk of accidents and less affordable for young female drivers who have a lower accident risk.
- The introduction of unisex annuity rates is likely to increase the aggregate cost of pensions and is therefore likely to have an adverse effect on overall pension savings. The annuity market is likely to be distorted, in particular, by selective purchasing on the part of defined benefit schemes. However, the draft Directive is inconsistent with the existing Council Directive 1986/378 on the equal treatment of men and women in occupational social security schemes and it might therefore not apply to annuities offered to such schemes. It is not clear where PRSAs would fit in this scenario.
- If this Directive is implemented, similar measures might be proposed in future in relation to the use of age and/or health status as insurance rating factors. This would mean that insurance premiums would effectively be “community-rated” i.e. the same premium rate for all, regardless of age, sex or health status. This would likely destroy commercial insurance provision.

*06 April 2004*

## Appendix 1

Source: Report of the Joint Working Party on Discrimination in Insurance and Pensions, presented to the Faculty of Actuaries on 21 March 1988

**Table 1 - Regional Mortality Rates per '000 (Males)**

	<b>Under 1</b>	<b>1-4</b>	<b>5-14</b>	<b>15-24</b>	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55-64</b>	<b>65-74</b>	<b>75-84</b>	<b>85/Over</b>	<b>Total</b>
<b>Lowest Regional Rate</b>	9.451	0.411	0.193	0.661	0.715	1.461	3.667	13.125	38.013	94.706	206.154	11.064
<b>Highest Regional Rate</b>	12.108	0.599	0.312	0.879	0.968	1.918	6.730	20.809	50.559	114.774	246.486	13.061
<b>Ratio High/Low</b>	1.281	1.457	1.619	1.330	1.353	1.313	1.835	1.585	1.330	1.212	1.196	1.181

**Table 2 - Regional Mortality Rates per '000 (Females)**

	<b>Under 1</b>	<b>1-4</b>	<b>5-14</b>	<b>15-24</b>	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55-64</b>	<b>65-74</b>	<b>75-84</b>	<b>85/Over</b>	<b>Total</b>
<b>Lowest Regional Rate</b>	7.113	0.285	0.129	0.239	0.363	1.022	2.834	8.320	20.481	58.871	161.089	10.806
<b>Highest Regional Rate</b>	9.423	0.503	0.213	0.321	0.539	1.355	3.812	11.48	27.921	71.337	191.727	12.753
<b>Ratio High/Low</b>	1.325	1.763	1.650	1.347	1.487	1.326	1.345	1.380	1.363	1.212	1.190	1.180

**Table 3 - Ratios of Male to Female Mortality Rates**

	<b>Under 1</b>	<b>1-4</b>	<b>5-14</b>	<b>15-24</b>	<b>25-34</b>	<b>35-44</b>	<b>45-54</b>	<b>55-64</b>	<b>65-74</b>	<b>75-84</b>	<b>85/Over</b>
<b>Wales</b>	1.571	1.137	1.230	2.839	1.530	1.591	1.640	1.782	1.836	1.640	1.278
<b>North</b>	1.221	1.421	2.418	2.204	1.514	1.634	1.862	1.813	1.788	1.609	1.236
<b>Yorks &amp; Humber</b>	1.207	0.899	1.133	2.701	1.627	1.458	1.594	1.777	1.866	1.669	1.294
<b>East Midlands</b>	1.335	1.019	1.516	2.806	1.471	1.629	1.580	1.726	1.828	1.664	1.242
<b>East Anglia</b>	1.570	1.638	1.397	3.309	2.208	1.413	1.294	1.566	1.833	1.581	1.299
<b>South East</b>	1.293	1.440	1.246	2.445	1.976	1.545	1.537	1.741	1.840	1.632	1.252
<b>Greater London</b>	1.293	1.286	1.350	2.366	2.093	1.751	1.665	1.757	1.873	1.660	1.292
<b>South West</b>	1.246	1.308	1.464	2.450	2.469	1.386	1.582	1.781	1.856	1.609	1.194
<b>West Midlands</b>	1.244	1.445	1.312	2.580	1.759	1.467	1.665	1.780	1.897	1.620	1.325
<b>North West</b>	1.140	1.013	1.961	2.772	1.696	1.346	1.716	1.793	1.817	1.604	1.236
<b>S East Ex Gtr Ln</b>	1.292	1.587	1.181	2.505	1.887	1.415	1.452	1.728	1.819	1.613	1.224
<b>Total</b>	1.273	1.241	1.422	2.584	1.819	1.494	1.612	1.762	1.839	1.624	1.253