Mortality and net tariffs in Norway

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Containing

• Life expectations in Norway

   The big picture, projections, differences between men and women, other parameters to use in the tariff than sex

• Mortality among insured

   Lines of business

• New net tariff for defined benefit schemes

   The need, data, projections

• Other elements in the net tariff
Life expectations in Norway
- the big picture

Source: SSb and FNH
Life expectations in Norway
- projections

Figure 3.4 Expected age at death 1900-2100.
Registered and projected
Source: NOU 2004:1 Statistics Norway
Life expectations in Norway
- projections – cont.

Figure 3.4 Expected age at death at age 67 1900-2100.
Registered and projected
Source: NOU 2004:1 Statistics Norway
Life expectations in Norway
- differences between men and women

• EU’s gender directive (equal treatment between men and woman)
  ➢ Does include insurance
  ➢ Does not include occupational schemes

• The directive should be implementet at latest 21.12.07

• It is possible to inform the EU Commission that the country will allow the use of sex as a factor when calculating premiums and benefits

• The differences between men and women must be "proved"

• It is not decided if the EØS countries have to implement the directive – close attention to other countries
Life expectations in Norway
- differences between men and women – cont.

Source: SSb and FNH
Life expectations in Norway
- differences between men and women – cont.

Figure 3.4 Expected age at death 1900-2100. Registered and projected
Source: NOU 2004:1 Statistics Norway
Life expectations in Norway
- other parameters to use in the tariff than sex
- county

Source: SSb
Life expectations in Norway
- other parameters to use in the tariff than sex
- profession

Source: SSb
Mortality among insured

Death rate pr. 1.000, men

Age

- Observed occupational pension 1996-01
- The Norwegian population 1999

Source: SSb and FNH
Mortality among insured
- lines of business

- Occupational pension schemes
- Individual pension
- Individual death benefit
- Group death benefit
Mortality among insured
- lines of business – cont.

Death rate pr. 1,000, men

Source: FNH
New net tariff for defined benefit schemes
- the need

• The insured live longer, the tariff is no longer strong enough

• The spouse pension have large surplus

• K1963 has been sufficient when a spouse pension have been connected with the old age pension, this will change in the future if the tariff is not changed

• Many companies drop the spouce pension

• New insurance law says that each benefit should have its own tariff, the tariff K1963 for old age pension for men asumes that there also is a connected spouse pension
New net tariff for defined benefit schemes - data

Men

Source: FNH
New net tariff for defined benefit schemes - projections

Death rates in percent of death rate in 1951, Norwegian population

Men

Women

Source: SSb and FNH
New net tariff for defined benefit schemes - projections – cont.

Finding a smooth curve for expected changes

![Graph showing expected changes by age for men and women](chart.png)
New net tariff for defined benefit schemes - projections – cont.

• Static or dynamic death rates

• For how many years should the projections go

• How expensive will the tariff be

• How often should the tariff be considered

• Recent development

• Experiences from the insurance industry – the mortality is lower amongst those with the highest wages?
New net tariff for defined benefit schemes
- EU-rules

• Treaty (358/2003) says the insurance sector can cooperate with respect to establishment of risk premium tariffs

• The tariffs have to be net tariffs, not containing elements of costs or margins of security

• The tariffs have to be non-binding

• The tariffs must be available to any insurance undertakings on reasonable terms

• The tariff K2005 must be bought
Other elements in the net tariff

• Probability of being married at time of death
• Spouse’s age
• Cohabitant at time of death
• Age of the cohabitant
• Number of children at time of death
• Age of the children at time of death
Other elements in the net tariff
- spouse

Probability of being married at time of death - men

Source: FNH
Other elements in the net tariff - cohabitant

Share of the Norwegian population who have a cohabitant (not wife/husband)

Source: SSb
Thank You for Your attention!