Demographic development

Opportunities for German Actuaries in Risk Management

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Actuarial Presidents' Forum, June 13th 2005, Rome
Demographic Development in Germany

- The prolongation of life expectancy in Germany (West) is comparable to other industrial nations.
- Since re-unification the formerly higher mortality rates in East-Germany have declined considerably; thus, for the future the life expectancy is expected to increase even faster than today.
- As a consequence, state and corporate pension schemes as well as the health insurance systems face the challenge of ensuring constant fulfilment of insurance cover.
## Comparison of International Mortality Trends

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</table>
Life Expectancy in Germany (East and West) at age 60, 1964/66 - 1998/2000

Lebenserwartung (in Jahren)


Quelle: Statistisches Bundesamt, Graphische Darstellung: BiB
New Tables for Annuity Products - DAV 2004 R

• To clarify the consequences of the demographic development - not least for political decision-makers - the German Association of Actuaries regularly quantifies the decline in mortality rates.

• The DAV has introduced new mortality tables in 2004:
  – for annuity products in private insurance including
    • government sponsored annuity products
    • corporate pensions
  – to strengthen the reserves for the existing portfolios.
Mean-Value of Decline in Mortality Rates (in %)
(Germany-West age 60-89 for different observation periods)
System of Retirement Pensions in Germany

Three Column Model

Corporate Pension Schemes

Riester-Pension*

Rürup-Pension**

Statutory (State) Pension

Private Pension Schemes

These are safe!

* private pension scheme with governmental financial bonus
** private pension with tax incentives
Government Reaction on Aging Population

• Tax exemption and transfer payments for asset backed and private financed old-age provision (Riester-Förderung 2001)

• Transition from taxed contributions and partially taxed pensions to tax-exempt contributions and fully taxed pensions (Income Tax Reform Act 2004)

Actuaries are asked to develop attractive and efficient concepts and products for individual and company provisions
Mortality Tables in Private Health Insurance

- In private health insurance the significance of mortality tables for premium calculation has increased considerably over the last 50 years.

- Reasons: the decline in mortality rates and the dependency of costs for medical treatment on the age of the insured person.


- Aging reserves and the transfer of individual and collective aging reserves gain importance.
Mortality Tables in Private Health Insurance

Example: Comparison of Male Life Expectancy for different tables
Challenges for Actuaries

- to clarify the implications of an aging population
- to help employers to maintain the level of corporate pension schemes
- to help the government to prepare for the future development of the social pension system
- to support political decision-making in current topics like transfer of aging reserves (private health insurance) or guaranteed surrender values (life insurance)

*Actuaries can give more support than they have been asked for so far!*