



Group Life Insurance

Seminar in Sarajevo

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Introduction to Group Life Insurance



Introduction to Group Life Insurance

What is Group Insurance?

A Group Insurance scheme is a plan under which persons are collectively insured as members of a group and not as individuals



Introduction to Group Life Insurance

Typical Characteristics of Group Insurance

- Terms and conditions specified for whole group
- One policy for the whole group



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Differences between Group and Individual

- Unit rate, i.e.
single rate for the whole group



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Differences between Group and Individual

- Limited or no individual underwriting, i.e. use of Free Cover Limits, actively at work conditions



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Differences between Group and Individual

- Short term contracts (1-3 years), in particular with regard to rate guarantees, terms and conditions



Introduction to Group Life Insurance

Differences between Group and Individual

- Regular rebrokers of business, i.e. schemes are offered to a panel of insurers on a regular (often annual) basis



Introduction to Group Life Insurance

Advantages of Group Insurance

For the group:

- Competitive rates
- Simplified underwriting



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Advantages of Group Insurance

For the insurer:

- Simplified administration
- High premium volume and cash-flow



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Disadvantages of Group Insurance

For the group:

- Cover is usually not tailor-made



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Disadvantages of Group Insurance

For the insurer:

- Competitive markets
- Potential loss of large premium volume
- Danger of antiselection due to limited underwriting



Introduction to Group Life Insurance

Forms of Group Covers

- Employees of a company
 - Professional associations
 - Credit Life (mortgage/loan repayments)
 - Credit card holders
 - Newspaper subscribers
- etc.



Introduction to Group Life Insurance

Types of Group Covers (1)

- Death risk
- Long Term Disability
- Dread Disease
- Long Term Care
- Medical



Introduction to Group Life Insurance

Types of Group Covers (2)

- Accidental Death and Disability
- TPD Riders
- Packages



Group Life Product Design



Product Design

Aims of Product Design Features

- Meet requirements of insured (where possible)
- Ensure risk can be assured and underwritten
- Avoid antiselection



Product Design

Specification of covered Group

- Group should be a “natural” group,

i.e. not created with the aim of obtaining insurance cover



Product Design

Specification of covered group

- minimum size 10

to ensure reasonable spread of risk



Product Design

Specification of covered group

- unambiguous eligibility and entry conditions

to prevent persons joining the scheme just to obtain insurance cover

to clearly define commencement and cessation of cover



Product Design

Eligibility Conditions

- Eligibility conditions determine who can join a group scheme

e.g. full-time employees; part-time employees



Product Design

Entry Conditions

- Entry conditions determine how members can join
e.g. on first day of employment; during specified period



Product Design

Compulsory Cover

- All members must join the scheme
- Ideal situation from insurer's point of view
- Reduced danger of antiselection



Product Design

Voluntary Cover

- Members can choose whether to join the scheme
- Insurer can impose minimum participation rate
- Insurer can impose stricter underwriting terms



Product Design

Actively at work clause

At scheme commencement cover is only granted to those members who are actively at work



Product Design

Actively at work clause

Employees not actively at work at commencement:

- Need to complete a qualifying period or
- Need to undergo individual underwriting



Product Design

Actively at work clause

On scheme renewals this applies to

- New members
- Increases in the level of cover



Product Design

Level of cover

Must be pre-determined by a fixed formula to avoid antiselection, e.g.

- Multiple of salary
- Fixed sums
- Classes of sums insured



Product Design

Free Cover Limits

What is Free Cover?

- Maximum sum insured without individual underwriting



Product Design

Free Cover Limits

What happens if a risk is over the Free Cover Limit?

- Individual underwriting
- Underwriting decisions only on benefit above the Free Cover Limit
 - loading
 - decline



Product Design

Free Cover Limits

Free Cover depends on

- Size of group
- average sum insured
- take-up rate



Product Design

Free Cover Limits

Example

$(1+0.06*n)*\text{average sum insured}$

n: number of members

Usually overall limit is applied



Product Design

Unit Rating

- A single premium rate applies to the whole group



Product Design

Unit Rating

Dynamic equilibrium of group assumed, i.e. constant structure:

- older members leave
- younger members join
- remaining members age



Product Design

Unit Rating

NB: The unit rate is not the rate for the average age !!!



Product Design

Unit Rating

- Short rate guarantees (usually 1-3 years)

- Conditions:
 - size of group varies within 25%
 - unchanged eligibility conditions
 - unchanged benefit formulas



Product Design

Profit Sharing

- Profit sharing is sometimes offered as an incentive to remain with the same insurer
- Loading to the rate needed
- Longer contract periods



Product Design

Exclusions

__ Exclusions are required to avoid incalculable risks,
e.g.

- War
- Nuclear
- Pre-existing conditions (for certain types of cover)



Product Design

Continuation Options

- Scheme members may take out Individual cover on leaving the group
- Care is required by the insurer



Group Life Pricing



Pricing

Positive Factors

Positive selection due to

- Employment
- Actively at work conditions
- Other policy design requirements



Pricing

Negative Factors

Possible antiselection due to

- Free Cover Limits



Pricing

Sources of data

- Insurer's own experience
- Market experience
- Population mortality
- Published mortality tables



Pricing

Group Life mortality

- Considerably lower than population mortality
- Similar to insured life's mortality



Pricing

Rating factors (Group Life)

- Region
- Occupational, social class
- Lifestyle
- Employment factors (e.g. medical)



Pricing

Rating factors (Group Disability)

Same as Group Life plus

- Economic situation
- Moral hazard
- Claims awareness
- Claims underwriting by insurer



Pricing

Regional mortality - Example UK mortality 1988

Region	Male	Female
North	116	116
North West	116	115
Wales	106	108
Yorkshire	107	105
W. Midlands	103	101
E. Midlands	97	98
South East	91	92
South West	89	88
East Anglia	81	83



Pricing

Regional Mortality

- Regional differences can sometimes be explained by other factors, in particular by a mix of occupational classes



Pricing

Occupational classification

Class 1: professional, executive, managerial

Class 2: clerical, supervisory

Class 3: skilled

Class 4: semi-skilled (<50% manual)

Class 5: semi-skilled (>50% manual)

Class 6: unskilled



Pricing

Occupational mortality (UK)

Class 1:	66 - 67 %
Class 2:	72 - 76 %
Class 3:	94 - 105 %
Class 4:	96 - 117 %
Class 5:	109 - 116 %
Class 6:	125 - 189 %



Pricing

Occupational morbidity (UK)

- Class 1: 75 - 80 %
- Class 2: 80 - 90 %
- Class 3: 130 - 160 %
- Class 4: 200 - 300 %
- Class 5: 350 - 500 %
- Class 6: > 500 %



Pricing

Experience Rating

Why experience rating?

- Not all relevant factors can be observed
- Take scheme history into account



Pricing

Experience Rating

Risk Theory Model :

$$\text{Premium} = (1-z) * m + z * s$$

m: expected claims rate

s: observed claims rate

z: credibility factor



Pricing

Experience Rating

Assumptions :

- Claims numbers distribution
- Claims size distribution



Pricing

Experience Rating - Examples

- Expected claims rate: 2 per 1000
- Years of experience: 5

Size	Credibility
250	25%
1,000	57%
5,000	87%



Pricing

Quotations

- Calculate unit rate
- Occupational / regional adjustment
- Experience rating



Pricing

Calculation of unit rate

- Base mortality table
- Age distribution
- Male / female distribution
- Salary / sum insured distribution



Pricing

Calculation of adjustments

- Regional distribution (where applicable)
- Occupational distribution



Pricing

Experience Rating

- Unchanged group structure ?
- Constant group size ?
- Unchanged benefit formulas ?
- Unchanged scope of cover ?



Pricing

Calculation of final rate

Loadings for :

- Acquisition expenses
- Administration expenses
- Commission



Administration, Underwriting, Claims



Administration

Administration of new business

- Notification of commencement
- Check conditions agree with quotation terms
- Ask for actively at work declaration



Administration

Administration of new business

- Calculate deposit premium
- Check lives over Free Cover
- Check reinsurance requirements



Administration

Administration of renewals

- Ask for renewal information
- Calculate adjustment premium
- Check terms



Administration

Administration of renewals

- Check claims experience
- Check benefits over Free Cover
- Check premiums



Administration

Accounting

- Record premiums due and paid
- Record claims
- Record commission
- Reinsurance accounts
- Data reconciliation



Administration

Monitoring Experience

- Net written premiums
- Unearned premium reserve
- Paid claims
- Claims reserve
- IBNR



Underwriting

Free Cover Limit

Any underwriting applies only to the benefit over the Free Cover Limit



Underwriting

Medical Underwriting

- Short health declaration
- Full application form
- MAR
- Medical examination
- Specialist examinations



Underwriting

Hazardous occupations

- Oil rigs
- Mining
- Explosives
- Diving
- Aviation



Underwriting

Hazardous pursuits

- Diving
- Mountaineering
- Motor racing
- Private aviation



Underwriting

Underwriting Terms

- Accept at standard rates
- Decline over Free Cover
- Accept at special terms



Underwriting

Special issues

- Cover prior to underwriting
- Forward underwriting



Underwriting

Forward Underwriting - Example

Free Cover	USD 200,000
u/w bar	USD 20,000

New underwriting once benefit exceeds USD 220,000; USD 240,000; etc.



Claims

Claims Decision

Claims decision should only be taken by insurer

not

by insured, employer, medical attendant of claimant, broker, e.t.c.



Claims Handling

Problem areas

- Insufficient information at quotation stage
- Terms not clear to insured
- Insufficient membership data
- Late notification of claim
- Scheme on risk ?



Claims Handling

Information requirements

- Information on claimant
- Information on scheme
- Medical information
- Claims investigation



Claims Handling

Checking validity of claims

- Check validity of scheme membership
- Check correct amount of benefit
- Check scheme is in force
- Check claims definition is fulfilled



Reinsurance



Reinsurance

What are the risks ?

- Risk of error
- Risk of random fluctuations
- Risk of adverse trends



Reinsurance

Reinsurance protects against :

- Risk of error until premium adjustments can be implemented
- Risk of random fluctuations, particularly larger claims
- Risk of adverse trends until premium adjustments can be implemented



Reinsurance

Quota share

- Provides protection of a fixed percentage of each risk
- Efficient form of protection against the risk of error and adverse trends
- Common for new covers



Reinsurance

Surplus reinsurance

- Provides protection on any scheme member whose benefit exceeds the insurer's retention per risk
- Offers good protection against random fluctuations
- Often combined with quota share



Reinsurance

Non-proportional covers

- Catastrophe excess of loss
- Stop loss



Services provided by the Cologne Re

Specialist advice

- Team dedicated to Group Life Insurance
- World-wide experience



Services provided by the Cologne Re

Assistance in Product Design

- Eligibility conditions
- Benefit design
- Free Cover Limits
- Profit sharing formulas
- Exclusions
- Rate guarantees etc.



Services provided by the Cologne Re

Assistance in Pricing

- Group mortality / morbidity
- Occupational adjustments
- Special risks
- Experience rating



Services provided by the Cologne Re

Analysis of Portfolio Experience

- Actual vs. expected claims
- Repricing
- Reserving basis
- Claims valuation and analysis



Services provided by the Cologne Re

Group Underwriting Assistance

- 24 hour turnaround on quotes
- Rates, Free Cover, special terms



Services provided by the Cologne Re

Medical Underwriting and Claims Handling

- Underwriting above Free Cover
- Claims underwriting



Services provided by the Cologne Re

Training

- Seminars
- Group Life Manual
- Training of Group underwriters



Services provided by the Cologne Re

Software

- Quotation tools
- Spreadsheet basis