

27th
International Congress
of Actuaries

**The Main Features of German
Private Health Insurance**

Erich Schneider, Germany

German Health Insurance

- Statutory Health insurance

- 87% of the population
- benefits in 2000:
EUR 126 billion

- Private Health Insurance

- 9% of the population
- benefits in 2000:
EUR 13 billion

Statutory Health Insurance

- Insured persons:
 - compulsory: employees with a salary under the „contribution assessment ceiling“
 - their spouses and children
 - voluntary members

Statutory Health Insurance

- Main benefits:
 - out- and inpatient medical treatment
 - dental care
 - drugs and appliances
 - sickness benefit

Statutory Health Insurance

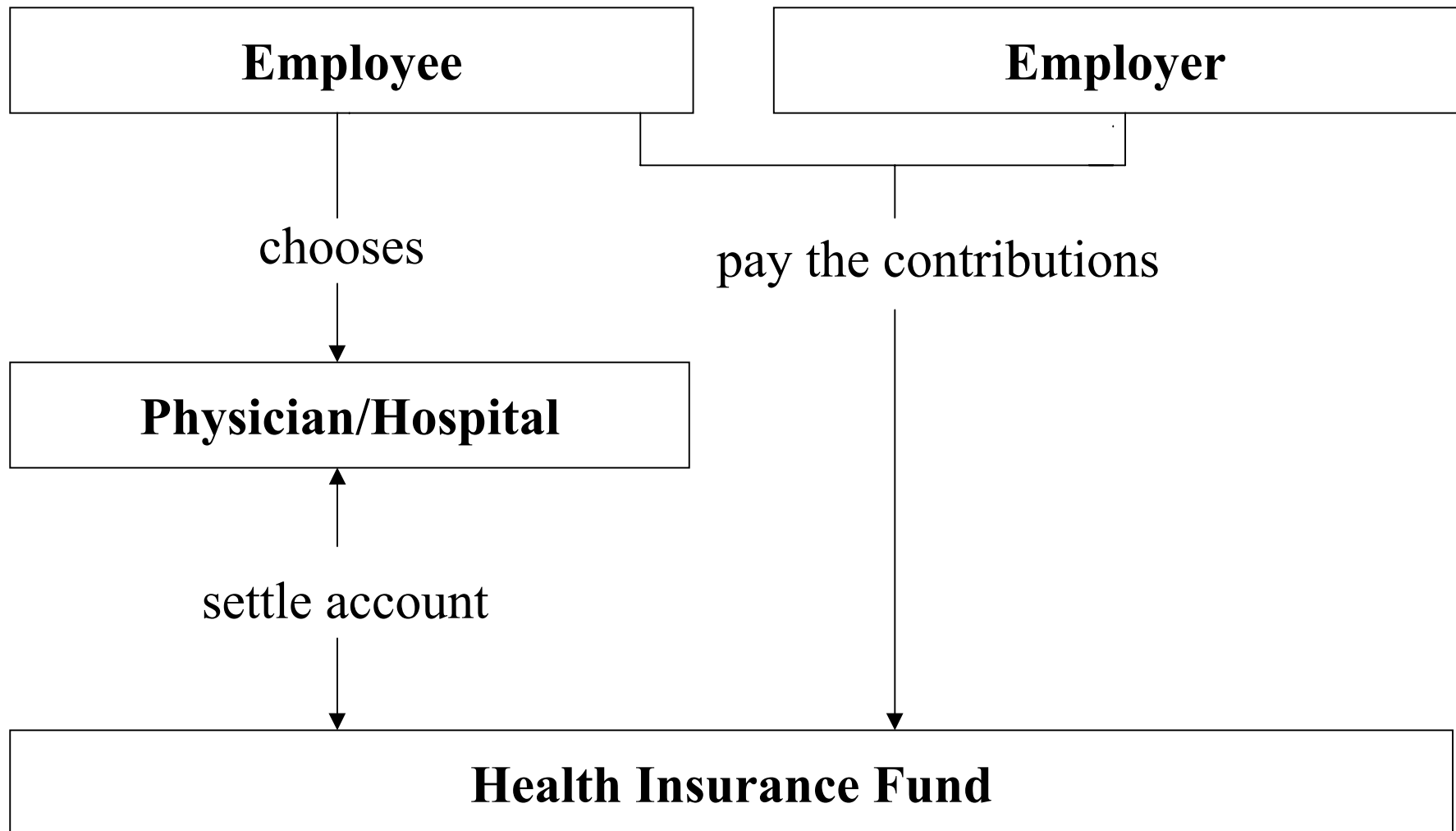
- Contributions:
 - a percentage of the salary or the social insurance pension (up to the contribution assessment ceiling)
 - contribution-free: spouse and children with negligible income

One half by the employee

One half by the employer
or the pension insurance carrier

Statutory Health Insurance

Organisation

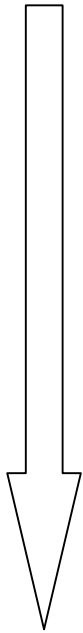


German Health Insurance

Statutory Health Insurance

•possible if

- your salary exceeds the contribution assessment ceiling
- you get self-employed
- you become a civil servant



•possible if

- your salary decreases under the contribution assessment ceiling
- and
- you are younger than 55



Private Health Insurance

„Once private, ever private“

Private Health Insurance

Substitutive Health Insurance

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Private health insurance

which may serve as a partial or complete alternative
to health cover provided by the statutory social security system

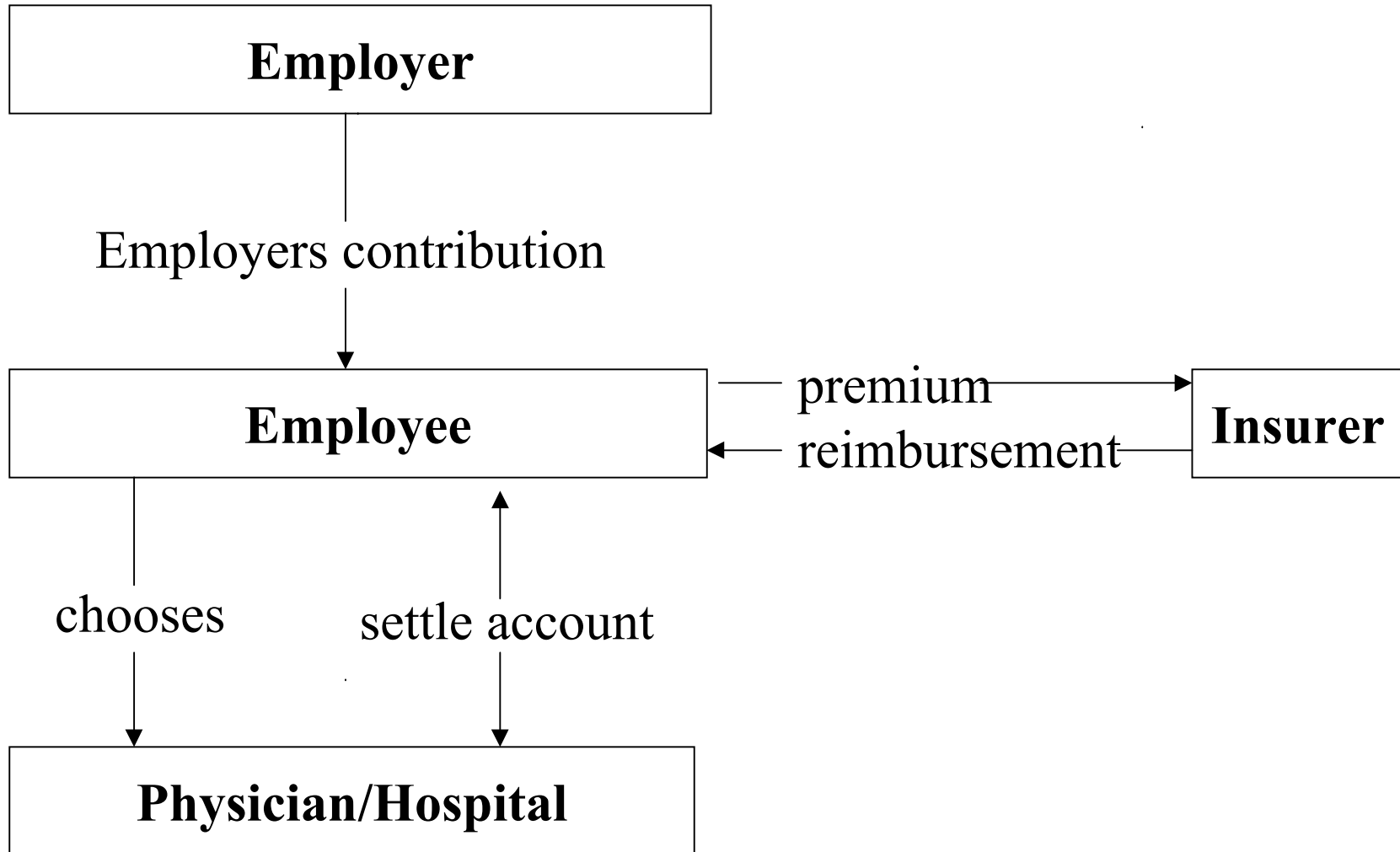


Legal regulation

7,5 million insured persons

Private Health Insurance

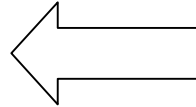
Organisation



Private Health Insurance

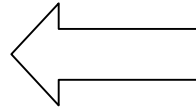
Regulation of health care market

Physicians



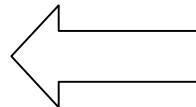
Government fee scale
2400 positions, multiplier 1-2.3-3.5

**Operating cost rates
for hospitals**



- Committees under government regulation
- limited extra costs for better accommodation

Drugs



- Retail price maintenance
- limited reimbursement for important kinds of drugs in the statutory insurance

German Health Insurance Market

Persons (Population: 82 million)

87% public insured persons		9 % private insured persons (substitutive)	
73% compulsory	14% voluntary	5% normal	4 % civil servants
88% without private supplementary cover	9% with private supplementary cover		

Premiums

Statutory Insurance: EUR 130 billion	Private Insurance: EUR 19 billion
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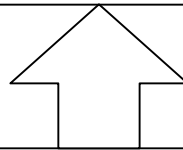
Substitutive Health Insurance

- Main requirements:
 - Lifelong insurance guarantee
 - Similarity to statutory insurance
 - but
 - a wide range of different tariffs
 - additional benefits
 - deductibles
 - a just premium for each insured
 - Level premium
 - leading to
 - a technical basis similar to life insurance
 - a reserve for increasing age

Substitutive Health Insurance

Lifelong insurance guarantee

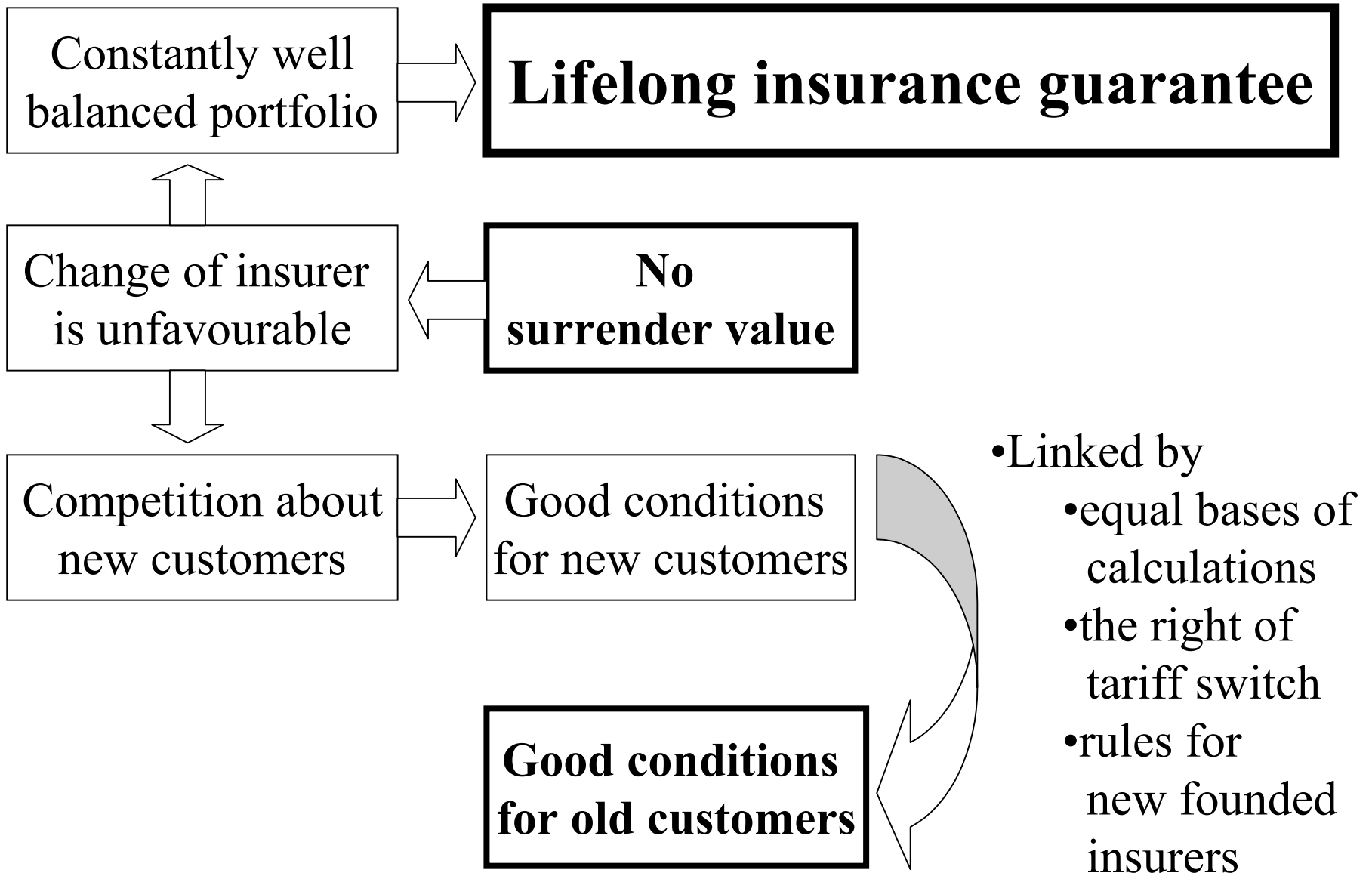
- No end of insurance
 - if a certain age is reached
 - if a certain sickness occurs
 - if high costs emerge
- No right of the insurer
 - to cancel the contract provided the premium is paid
 - to reduce the coverage



Conditions

- Premium adjustments according to the general increase of health expenses
- Cautious calculation assumptions
- Constantly well balanced portfolio

Substitutive Health Insurance

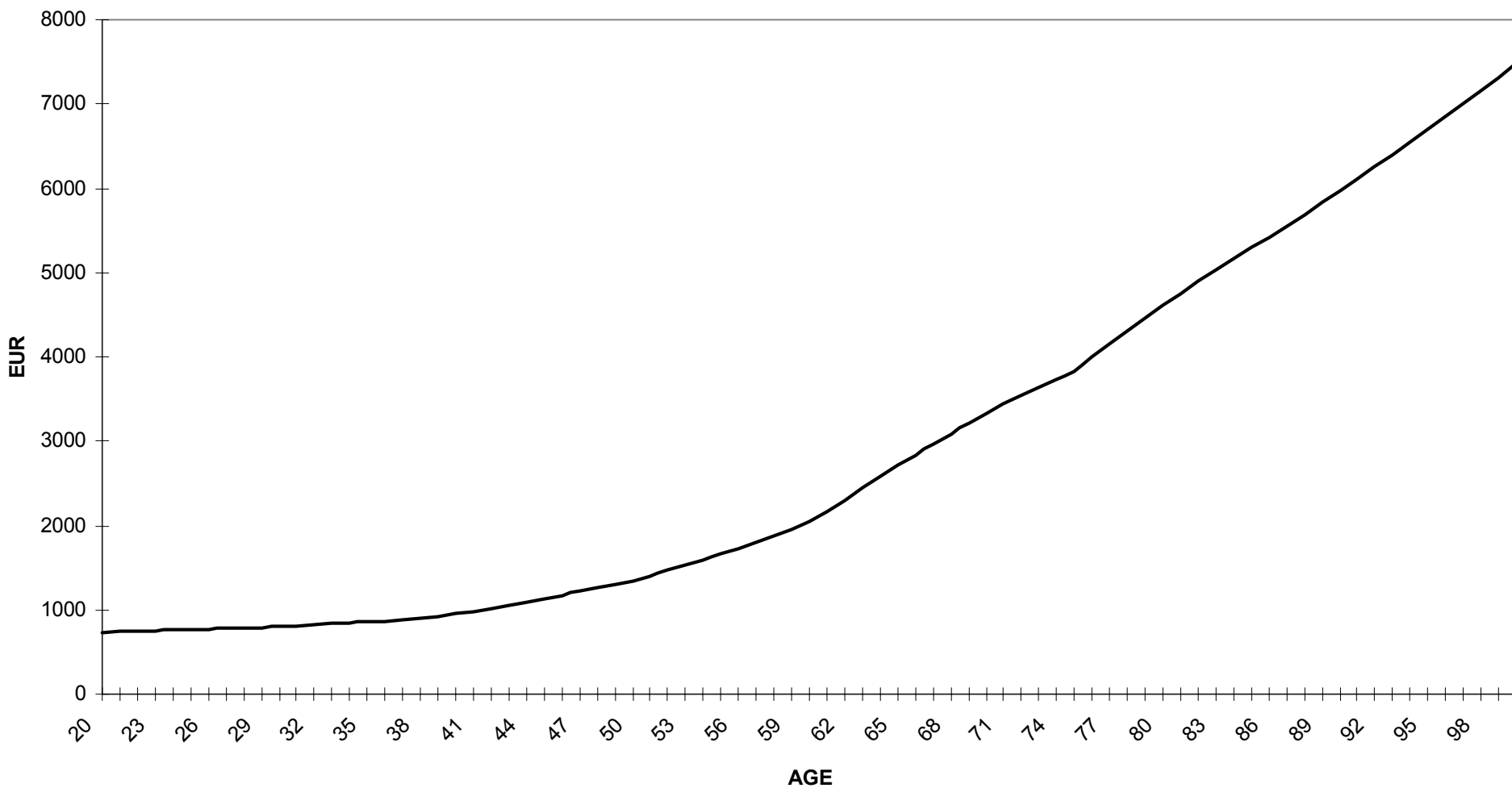


Substitutive Health Insurance

Bases of calculations

- Expected yearly benefits
- Mortality rates
- Lapse rates
- Interest rate
- Initial expenses
- Administration expenses
- Contingency margin

YEARLY EXPENSES FOR OUTPATIENT TREATMENT MALES



Substitutive Health Insurance

Calculation of new business premiums

$P_x = A_x / \ddot{a}_x$ net premium

$A_x = \sum_{t=0}^{\omega-x} K_{x+t} * D_{x+t} / D_x$ present value of benefits

K_{x+t} = expected yearly benefit at age $x+t$

$l_{x+1} = l_x * (1 - q_x - s_x)$

s_x = lapse rate at age x

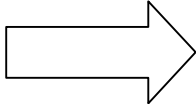
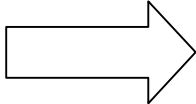
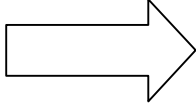
- Based on business in force
- Cautious assumptions
 - at most 3.5 % interest
 - at least 5% contingency margin

Substitutive Health Insurance

The Claims reserve

„The insured event is the necessary medical treatment“

Assignment of dates

Claim payment		Date of treatment
Premium of a year		Treatments of that year
Claims reserve		Treatments in the accounting year leading to payments in the following year

Substitutive Health Insurance

The reserve for increasing age

$${}_mV_x = A_{x+m} - P * \ddot{a}_{x+m}$$

- with the same bases as in the new business
- used for
 - valuation
 - tariff switch
 - premium adjustment

- Bases of valuation = bases of calculation
- No consideration of the individual state of health

Substitutive Health Insurance

The general increase of health expenses

No consideration of the individual state of health

Premium rise on the basis of the reserve
under rate q of inflation

$$\text{new}P - \text{old}P = q * \text{old}P_{x+m}$$

The premium rise is relatively higher
than the rate of inflation

Substitutive Health Insurance

The premium discharge in old age

- 10% loading
- use of profits
 - at least 80% as dividends to policyholders
 - 90% of the interest profits for discharge in old age
- fix administration expense loading per insured
- switch hint
- standard tariff
 - premium limit according to the statutory system
 - pool of private health insurers

Private Health Insurance

Miscellaneous

- premiums for children
- underwriting for new born children
- underwriting for civil servants
- non substitutive health insurance
- long-term care insurance
 - introduction in 1995 for the whole substitutive portfolio
 - premium limit according to the statutory system
 - pool of private health insurers

Private Health Insurance

**Lifelong insurance
guarantee
to a bearable price**

&

**Competition
in the health insurance
market**



Legal regulations
referring to

- the prices on the health care market
- underwriting, tariff switch and termination
- the calculation of premiums and reserves
- the adjustment of premiums
- the use of profits

Social market economy in health insurance