The German Private Compulsory LTC Insurance and Its Relation to the German Social Security System

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This session will cover

- Some introductory remarks about the German Health Insurance System
- Basic conditions of the German Private LTC (PPV)
- Effects on the calculation of the PPV
- The PPV-Model as a pattern for the integration of the Private Health Insurance Sector into the Social Security Scheme?
Financing of Health Costs within the German Health Insurance System

Pay-As-You-Go System

- Statutory Health Insurance
  Gesetzliche Krankenversicherung (GKV)

Funded System

- Private Health Insurance
  Private Krankenversicherung (PKV)
Pay-as-you-go System

- Equivalence principle per period (e.g. calendar year)
  \[ \sum \text{contribution received} = \sum \text{benefit expenditures} \]
- No capital accumulation for future periods
- Intragenerative solidarity
- Intergenerative solidarity
Effects for GKV

- **1975:** Contribution level of 10.5%
  average max. contribution 110 €
- **Today:** Contribution level between 12% and 15%
  average max. contribution 500 €
- **Future:** Contribution levels above 25% are anticipated

The economic pressure placed on future generations will rise
Funded System

- Individual life-long equivalence principle
  constant premiums (in non-varying circumstances)
  cash value of premiums received =
  cash value of expected expenditures
- Accumulation of capital to cover costs in old age =
  ageing reserves
**Assumption:**
constant basis of calculation
(health costs, life expectancy etc.)

- **Paying in to the ageing reserves**
- **Transfer from the ageing reserves**

- **average age-related risk premium**
- **constant premium**
PKV

- Voluntary insurance, risk selection
- Self-employed persons, civil servant officials and high-income employees have access to the PKV
- Obligation to contract those who have recently been given the rank of a civil servant official
- Waiver of orderly right to termination
- Benefits are contractually guaranteed
Population Trends in Germany

- Steady decrease of total population
- Increasing „ageing“ of the population

Consequences

- Explosion of premiums in the pay-as-you-go system due to demography
- Increased need for demography-resistant coverage based on capital
Introductory Remarks

LTC in Germany

Social LTC
SPV
90%

Private LTC
PPV
10%
Basic Conditions of the PPV

- Compulsory insurance ("care follows health")
- Obligation to contract
- Uniform benefit package
- No contractual relation between insurance companies and service providers
- Peculiarities concerning tariffication and calculation
Effects on the Calculation of the PPV

- Need for financial transfer:
  - intragenerative from men to women,
  - intergenerative from young to old policyholders
- Uniform calculation model within the health insurance line
- Uniform bases of calculation for all insurance companies
Age- and Gender-Depending Net Premiums

\[ P(x) = \begin{cases} \frac{K(x)}{A(x)} & \text{where } 0 \leq x \leq 18 \text{ or year of birth } \leq 1915, \\ \frac{K(x)}{a(x)} & \text{where } 19 \leq x \leq 100 \text{ and year of birth } \geq 1916. \end{cases} \]

- \( K(x) = \) actuarial per capita benefit
- \( A(x) = \) cash value of aggregate benefits
- \( a(x) = \) cash value of annuity
Gender-Neutral Premiums

\[ P(x \mid y) = (1 - Q_y) \cdot P(x) + Q_y \cdot P(y), \quad 0 \leq x = y \leq 100 \]

\( Q_y = \) proportion of women in relation to all policyholders of age \( y = x \)

Transfer due to children

\[ UK = \sum_{x=0}^{18} L(x) \cdot P(x \mid y) \]

\( L(x) = \) total number of premium-free children of age \( x \)

Amount of transfer: 18,000,000 €
Transfer due to the limitation of maximum premiums

\[
UG = \sum_{x,y=19, x=y}^{100} (L(x) + L(y)) \cdot \max \{P(x \mid y) - (12 \cdot (1 - \sigma) \cdot HG - \Gamma_{\max}) \cdot 0\}
\]

\(L(x)\) = number of male policyholders of age \(x\)

\(L(y)\) = number of female policyholders of age \(y = x\)

\(HG\) = maximum premium of the social LTC insurance

\(\Gamma_{\max}\) = statutory maximum cost loading per capita

\(\sigma\) = safety loading

Amount of transfer: 212,000,000 €
Total amount of transfer = $UK + UG$
$= 230,000,000 \, €$

- Payment of transfer by policyholders whose risk-equivalent premiums are below the maximum premium
- Realization of transfer by a uniform per capita adjustment component $U$
Monthly gross premiums

\[ b(x \mid y) = \min \left\{ \frac{P(x \mid y) + U}{12 \cdot (1 - \sigma)} ; HG - \frac{\Gamma_{\text{max}}}{12 \cdot (1 - \sigma)} \right\} + \frac{\Gamma}{12 \cdot (1 - \sigma)} \]

\[ \Gamma \leq \Gamma_{\text{max}} \text{ the company-specific absolute loading} \]

Sufficient premium income taking into account all policyholders of all insurance companies
Risk transfer among the insurance companies inevitable

Transfer organized in two stages

D1-transfer

D3-transfer
Effects on the Calculation of the PPV

**D1-transfer**

\[ D1 := \sum_{x,y=19, x=y}^{100} (L(x) + L(y)) \cdot (12 \cdot b(x \mid y) \cdot (1 - \sigma) - \Gamma) - \]

\[ \sum_{x,y=0, x=y}^{100} (L(x) \cdot P(x) + L(y) \cdot P(y)) \]

\[ L(x), L(y) = \text{number of male, female policy-holders within one specific insurance company} \]
D3-transfer

\[ S_{\text{rech}} = \sum_{x,y=0, x=y}^{100} (L(x) \cdot K(x) + L(y) \cdot K(y)) \cdot \frac{1}{1-\sigma} \]

\[ Z = (i - 0.035) \cdot V \]

\[ i = \text{interest rate of the respective insurance company for the ageing reserves} \]

\[ V = \text{ageing reserves} \]

\[ D3 := S - Z - S_{\text{rech}} \]

\[ S = \text{actual benefits} \]
Effects on the Calculation of the PPV

Development of Premiums

- avg. premium social LTC
- max. premium social LTC
- premium private LTC (40 y.)
The Model of the PPV as a Pattern for the Integration of the Private Health Insurance Sector Into the Social Security Insurance Scheme

Question:

Does it make sense to extend the model of the PPV to larger groups of people and to the sickness costs risk?
Integration Into the Social Security Scheme

Requirements

- Unconditional obligation to contract for the insurers
- Obligation to insure for (a specified part of) the population

Several problems arise
Problems

- Registration of all relevant personal data of all (concerned) members of the population
- Distribution of the persons concerned to the single private insurance companies
- Supervision of the execution of the obligation to insure
- Massive collection failures to be expected
Objectives

- To promote competition
- To increase efficiency
- To orient better towards the policyholders’ wishes

→ Is the model of the PPV suitable to achieve these aims???
Cons

- Uniform benefit package
- Restricted freedom of contract
- Balancing of risks
  - uniform calculation
- Relationship to the service providers not organized competitively
Incentive effects of the risk balancing

- Consequences of inefficient acting???
  - D1-transfer up to the required standard
  - D3-transfer to a certain extent offering incentives to uneconomic behaviour
Distributional justice

- Intragenerative distributional justice realized
  - Risk solidarity
  - Income equalization to a certain extent

- Intergenerative distributional justice realized
  - Limitation of maximum premiums
Is it worth generalizing the PPV-model to further groups of persons and further branches of social security?

Pros

- On a long-term basis transition to the more demography-resistant funded system
- Double burden of the younger policyholders adequately distributed to the subsequent younger age-groups
- Separation of the vertical income distribution from the insurance principle
Cons

- Prevention of competition, uniform range of benefits, uniform calculation of premiums
- Relations to the service providers not designed competitively
- Balancing of risks with incentives to uneconomic behaviour
- Too expensive for the whole population (double burden, no vertical income distribution)
But: We need more demography-security within our health insurance system.

Among the possibilities to reach this goal:

- Spinning-off of particular social security sectors and transition to the funded system
- Reduction of the statutory health benefits to a lower level and transfer of the insurance of the benefit gap to the private insurance system (corresponding to the system of governmental allowance for civil servant officials)