

The Actuarial Profession
making financial sense of the future

Life Conference and Exhibition 2011
Cord-Roland Rinke and Steve Groves



The Greatest Challenge Facing Ageing Societies

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Agenda

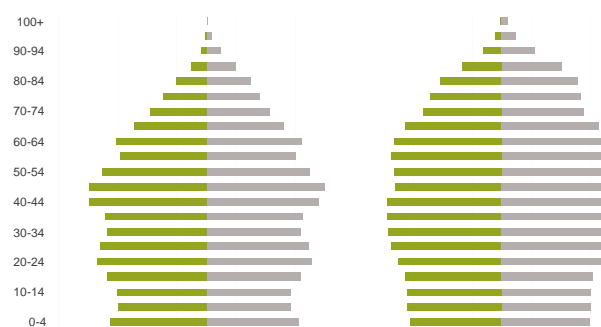
- **Demographic trends**
- Long term care funding systems excluding UK
- Private long term care products excluding UK
- The UK system and Dilnot

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2

Demographic Trends

Population UK



- Expected increase of population by **13%**
- Number of people aged 65+ expected to increase by **62%** (from 10.3 m to 16.8 m)
- Number of people aged 80+ expected to increase by **121%** (from 2.9 m to 6.5 m)
- But also increase in generation < 40 by **4%**

Source: US Census Bureau

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3

Demographic Trends

Prognosis for 2050

	UK	US	Germany	Singapore
Expected increase in total population	13%	36%	-12%	64%
Expected increase in generation 65+	62%	111%	28%	432%
Expected increase in generation 80+	121%	177%	121%	761%
Expected increase in generation < 40	4%	29%	-17%	9%

Source: US Census Bureau

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4

Demographic Trends

Life Expectancy at Birth

	2011	2020	2030	2040	2050	Increase (in years)
US	78	80	81	82	83	5
UK	80	81	82	83	83	3
Singapore	83	86	88	90	92	9
Germany	80	81	82	83	83	3

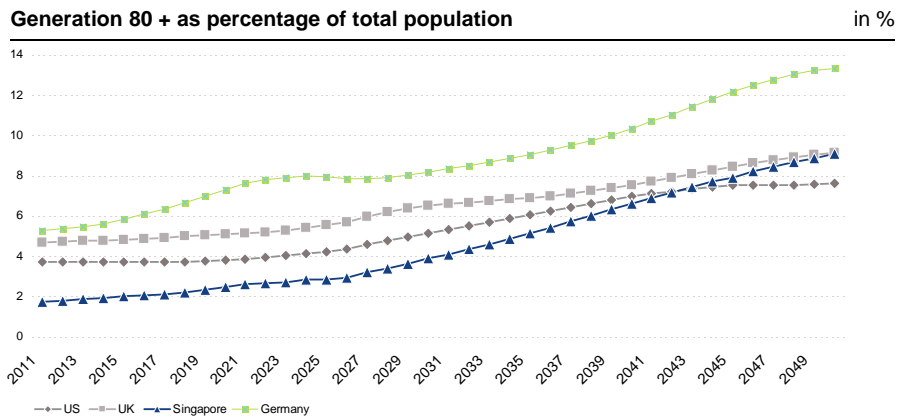
Source: US Census Bureau

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5

Demographic Trends

Increase of Age Population 80+ as Percentage of Total Population



Source: Own calculations based on US Census Bureau data

Aging population in all four countries: At least 1.9 m more people in Germany will require care

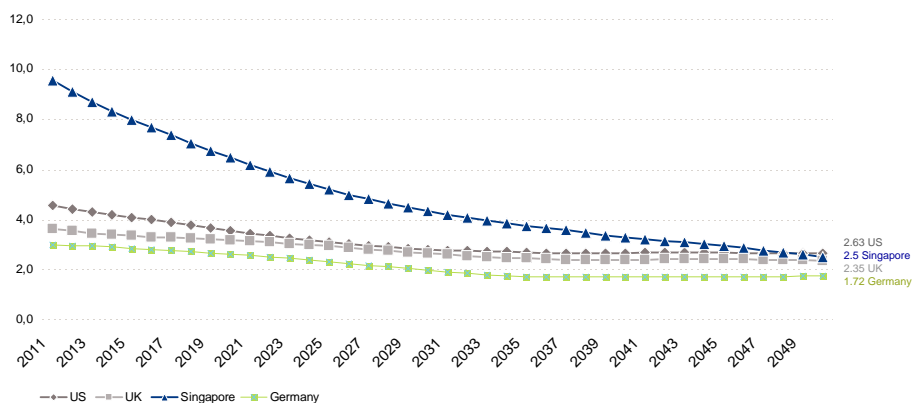
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6

Demographic Trends

Working Generation vs. Retirees

Ratio working generation (Age 20 - 64) vs. retirees (Age 65+)



Source: Own calculations based on US Census Bureau data

Each worker will have to support more retirees

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7

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8

Germany: Long Term Care System

- (Almost) compulsory state LTC insurance
 - Contribution: 1.95% of gross income, 0.25% in addition for those without children
- Eligibility:
 - People who (are expected to) need assistance with regard to Activities of Daily Living (ADL) for at least 6 months due to a physical or mental illness
- ADL covered:
 - Personal hygiene (e.g. bathing, dental hygiene, toileting)
 - Feeding
 - Mobility (e.g. getting in and out of bed, dressing, walking, leaving the flat)
 - Housekeeping (e.g. shopping, cooking, cleaning)
- Consistent assessment by the Medical Review Board across the country

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9

Germany: Long Term Care System

- Level of care
 - Level I
At least 90 min./day of assistance with regard to ADL necessary (45 min. for basic care)
 - Level II
At least 180 min./day of assistance with regard to ADL necessary (120 min. for basic care)
 - Level III
At least 300 min./day of assistance with regard to ADL necessary (240 min. for basic care)
 - Severe cases - require care far beyond Level III
- State LTC insurance participates in expenses for
 - Aid for care, e.g. walking aid, wheel chair
 - Domestic and residential/nursing care
 - Cash benefits for informal care givers

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10

Germany: Long Term Care System

Maximum State Benefits per Month from 1st January 2012 on

Level	Care cost [EUR]	Housing cost [EUR]	Other expenses [EUR]	Contribution by state [EUR]	Co-payment [EUR]
I	1,416	561	356	1,023	1,310
II	1,786	561	356	1,279	1,424
III	2,276	561	356	1,550	1,643

- Maximum state benefits for Level I and II in domestic or intermediate nursing care 450 EUR and 1,100 EUR resp.
- For people suffering from mental diseases (i.e. dementia) additional benefits up to 2,400 EUR per year are possible

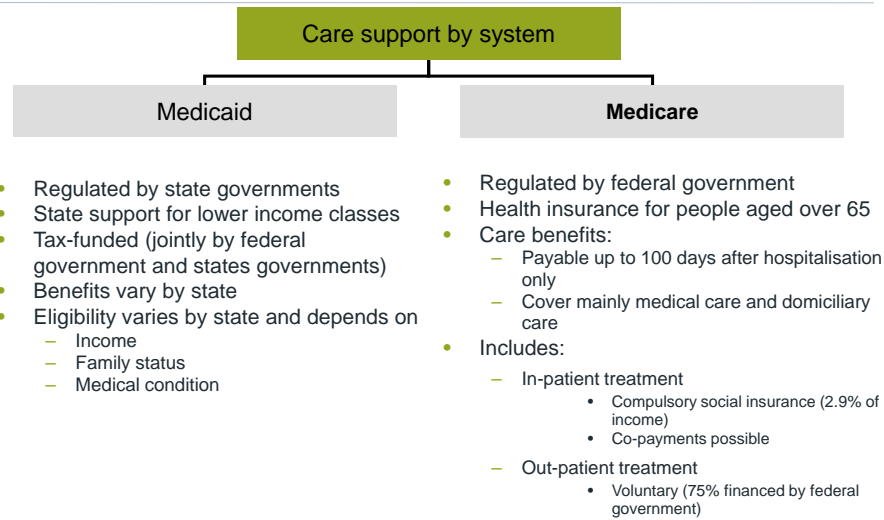
Costs of care exceed state benefits by more than 100 %

Source: AWO Care Home in Hannover
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11

US: Long Term Care System

Medicaid/Medicare

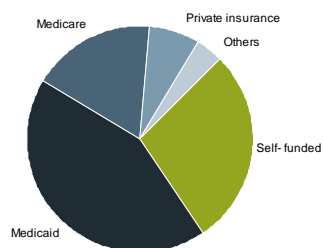


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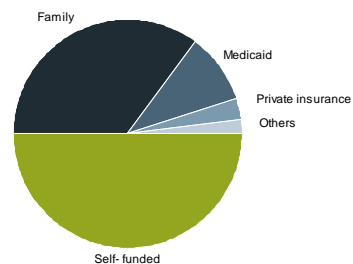
12

US: Long Term Care System

Sources of payment for LTC: 2006



Sources of Payment for Assisted Living Facilities: 2006



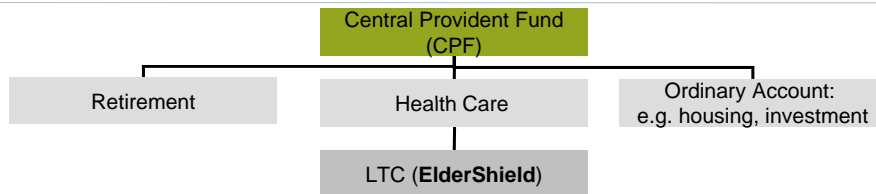
Source: The Scan Foundation:
long term Care --- an Essential Element of Healthcare Reform, 2008

61% of costs of care are funded by the state

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13

Singapore: Long Term Care System



- Central Provident Fund
 - Compulsory regular contribution by employers and employees based on % of income
- 2002: Launch of ElderShield fund for all Singaporeans at age 40 and above
 - Almost compulsory scheme (opt out possibility only within three months after reaching age 40)
 - Initially two private insurers appointed to run ElderShield (NTUC Income and Great Eastern Life)
- 2007: Renewal of ElderShield
 - In addition to NTUC Income and Great Eastern Life, a third insurer, AVIVA, is now allowed to issue ElderShield policies

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14

Singapore: Long Term Care System

- Disability measured by 6 ADLs:
 - Mobility, feeding, transferring, dressing, bathing, toileting
- Auto-Cover at age 40, maximum entry age at 69
- Basic coverage:

	Benefit	Duration
ElderShield (before 2007)	SGD 300 (+150 GBP) per month	60 months
ElderShield (after 2007)	SGD 400 (+150 GBP) per month	72 months

- Members are eligible for payouts if not able to perform three or more ADLs
- **Extended long term care benefits** available from ElderShield providers on private basis since 2007

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15

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16

Germany: Private LTC Insurance Products

Product provided by life insurers

- Care annuity
"Pflegerentenversicherung"
 - Regular premium or single premium
 - Benefits:
 - 100% of insured annuity in case of Level III
 - 50% of insured annuity in case of Level II
 - 25% of insured annuity in case of Level I
 - Additionally: lump sum of 6 monthly annuities at first claim
 - No waiting period
 - Underwriting necessary

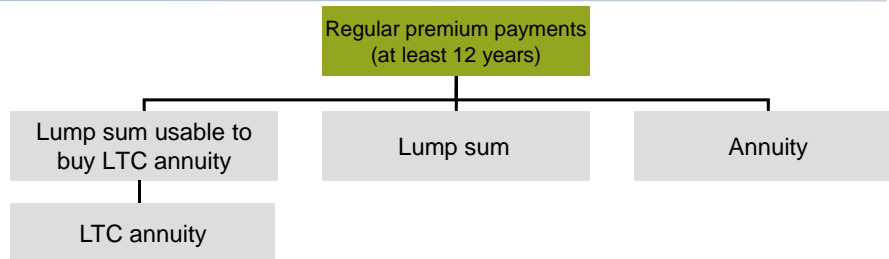
Products provided by health insurers

- Care expenses insurance
"Pflegekostenversicherung"
 - Covers up to 100% of actual costs of care not covered by state payments
 - Covers only incurred expenses for eligible services
 - Housing and boarding costs sometimes excluded
 - In general no waiver of premium during claim period
 - Adaption of premium possible
- **"Pflegetagegeldversicherung"**
 - Payment for each day of care, independent of the service provided
 - Benefit can depend on level of care
 - In general no waiver of premium during claim period
 - Adaption of premium possible

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17

Germany: Private LTC Insurance Products



- Entry age up to 70
- No medical underwriting at inception
- No medical underwriting at beginning of decumulation period
- Eligibility criteria may differ from those of the state insurance
- No guarantees that lump sum will be sufficient to buy a LTC insurance

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18

US: Private LTC Insurance Products

LTC Insurance

Comprehensive LTC insurance

- Covers care in a variety of settings, e.g.:
 - At Home, at Adult Day Service Centres, **Assisted Living Facilities**, Nursing Homes
- Benefits payable as:
 - **Reimbursement**: incurred expenses
 - **Indemnity**: fixed amount for received service
 - **Cash benefit**: fixed amount
- Benefit payments: months up to lifetime
- Elimination periods of 30, 60, 90 days
- Inflation protection offered

Non-comprehensive LTC insurance

- Restricted to facilities such as nursing homes
- Benefits payable as:
 - **Reimbursement**
 - **Indemnity**
- Benefit payments: months up to lifetime
- Elimination periods of 30, 60, 90 days
- Inflation protection offered

Most policies sold: comprehensive cover, reimbursement, limited duration and elimination period included

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19

US: Private LTC Insurance Products

Reverse Mortgage

- Available for people aged 62+
- Home equity loan against the value of the house
 - Payable as lump sum or monthly income
- Repayment at death or moving out
- Income (as long as spend in the month of receiving)
 - Not taxable
 - Not countable towards Social Security and Medicare benefits or Medicaid eligibility

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20

Singapore: Private LTC Insurance Products

- Additional benefits for ElderShield members
 - Increased monthly annuity
 - Extended durations (up to life time)
 - Lump sum upon first claim to cover initial expenses
 - "Get Well" and death benefits
 - Increased benefits payable for 36 months for beneficiaries with children
 - Waiver of premium during claim period
 - Possibility to soften eligibility conditions: two ADLs instead of three
- Stand alone private LTC:
 - Include some benefits similar to those providers involved in ElderShield, but
 - membership in ElderShield fund not necessary
 - may cover advanced cases of dementia as well
 - cover some medical treatment and hospitalization expenses up to age 85
 - are addressed to children to care for their parents

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21

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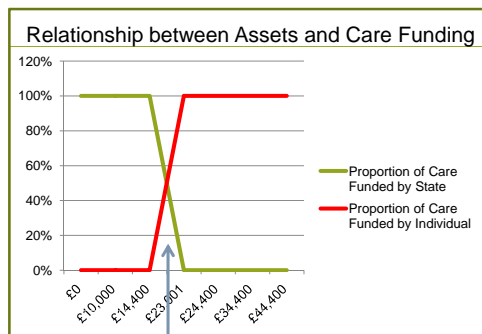
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22

The UK - Today

- Care costs subject to means tested system
- First £14k of assets disregarded
- Beyond £23k of assets 100% "self funded"
- Entitlement determined at Local authority level
- Subject to Dilnot Report
- Reviewed by Law Commission
- White Paper "Due in Spring"



Cliff between £14.4k and £23k

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23

The UK – Key issues with present system

- Postcode lottery
 - Cost of Care
 - Level of LA support
- Huge variability of outcome
 - 25% of people die having needed no Care
 - Average stay 2.5 years at £35k
 - Average Private payer stay nearly 4 years
 - 10% of Private payers live 8 years or more
- Littered with Perverse Incentives
 - Domiciliary v Residential
 - Deliberate Deprivation

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24

The UK – Insurance Products

Characteristic	Immediate Needs Annuities ("INAs")	Pre-Funded Insurance
Target Consumer	85, Self Funder, In Care	50-75, Likely to be Self Funder, Healthy
Premium	Single, Typically £100k	Single and/or Regular. £25k or £250pcm
Claim	Annuity, paid for life. Often with money back option on early death	ADL Failure assessed by insurer
Tax Basis	Tax Free	Tax Free (if written as PHI)
Actuarial Considerations	Estimating number of months an 85 year old with medical conditions will live	Claim Inception, Claim Duration, Investment return, Expenses, Selection

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25

The UK – Why Consumers buy INAs

Characteristic	Immediate Needs Annuities	Pre-Funded Insurance
Denial ("The need for Care will never happen to me")	No – In Care	Yes – Claim Probability between 1:3 and 1:5
Prioritisation an issue ("Spend on today's need and let tomorrow happen")	No – Care is today's need	Yes – Few consumers choose to defer consumption to insure against very uncertain risk
Complex	No – Tax Free Annuity	Yes – combination of insurance and investment product with complex claim rules
Subjectivity	No – terms known and paid until death	Yes – reviewable premiums and ADL failure assessed by insurer
Insurable Risk	Yes – Subject to data to underwrite	Probably not – 50 year perspective on health, investment and expense risk, Not sure what cover is needed

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26

The UK – Why Are there no Prefunded Products Any More?

- Sold in modest volumes in mid to late 90's
- Reviewable unit linked or quasi-unit linked contracts
- Premiums were inadequate
 - Investment returns fell sharply (Fixed Interest)
 - Claim costs far higher than expected
- Led to Large Premium reviews (30-40%)
- Consumers lapsed or reduced cover
- IFAs lost confidence
- Last plan withdrawn from sale in 2010

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27

The UK – Tomorrow.....

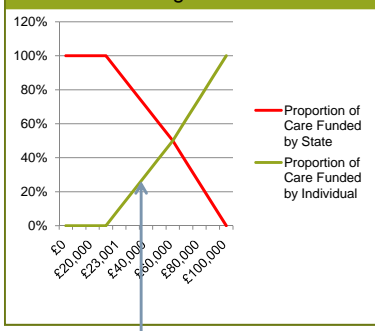
- Andrew Dilnot reviewed system for Government
- Key recommendations:
 - Nationalised assessment and entitlement
 - Nationalised information and advice service
 - Care costs split into Residential and Personal Care
 - Individual pays all residential costs
 - Individual pays first £35k of Personal Care
 - Government pays Personal Care at basic level over £35k
 - Disregard moved to a varying proportion up to £100k
- Estimated Cost an incremental £1.5bn in 2012
- Doubling by 2030

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28

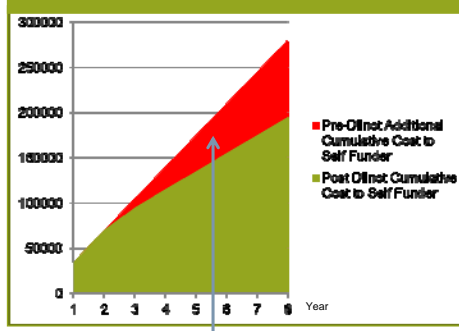
The UK – Dilnot in Graphs!

Relationship between Total Assets and Care Funding



No longer a cliff at £23k

Lifetime Care Costs for a Self Funder Pre and Post Dilnot



Red area shows new Government funding

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29

The UK – Tomorrow.....

- Proposals went some way to addressing issues
 - National Assessment System
 - Provision of advice
 - Equalised Domiciliary and Residential
 - Reduce incentives for deliberate deprivation
- But not without challenges
 - Leave majority of cost with individuals
 - Very complex to implement
 - Potentially unacceptable cost to treasury
- Key Winners
 - Those with assets between £23k and £100k
 - The very wealthy

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30

The UK – A Crystal Ball

- White Paper due in the Spring
- Not clear what will be in it
- A prediction on where the White Paper finishes
 - Will adopt the zero/low cost changes
 - increase disregard
 - information and advice
 - nationalised assessment
 - The more expensive ones go into the long grass
 - capping personal care costs
 - moving disregard materially
 - Another review with a different brief in the next five years

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31

The UK – What Should the Insurance Industry Call for

- Support nationalised assessment
- Support increased information and advice
 - Must include Financial Advice
- Accept consumers won't prefund specifically for care
- Key is consumers saving an adequate amount
- Work with Government to drive pension saving
- Work with Government to challenge mindset re housing wealth
- Improved flexibility on decumulation options
- Disregard linked to secure insured income