NAIC Senior Issues Task Force Long-Term Care Hearing

Long-Term Care Actuarial Implications

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Qualifications and Limitations

- The information contained in this presentation is for discussion purposes only and should not to be relied upon by its recipients
- The data contained in this presentation are for illustrative purposes only. Actual results for any specific situation might differ
- This presentation is intended for state regulators attending the NAIC Fall 2012 National Meeting

Long-Term Care is a Complex Product

- Pricing is on a lifetime basis (level premium, increasing age curve), and major factors affect the rates:
  - **Morbidity - made up of: frequency (probability of starting a claim), continuance curves (probability of person staying on claim – determines length of claim), and utilization (average cost per service and number/mix of services)**
  - **Lapse and mortality – determines how many people get to durations when claims are high**
  - **Investment income – determines how much money is made on large reserves that are accumulating**
- For all companies – lapse, mortality and investment income have been declining in recent years

Is This An Insurable Risk?

- Uninsurable risk – where money trades hands and/or risk is completely unpredictable. E.g., Medicare Part B deductible
- LTC is a low frequency, high cost event…the very definition of an insurable event
- Milliman studies indicate that around 50 percent of insureds who qualify for an LTC policy and hold onto their policies will have a claimable event at some point in their lives (percent varies significantly by age, gender, marital status, etc.)
- For someone to self-insure, significant asset build-up would be needed
- LTC is an insurable event, though it's very complex to price
- Alternatives?

Top 20 Individual Writers In 2004

Rank	Company	Production ($millions)
1	Genworth	153
2	John Hancock	114
3	MetLife	86
4	Bankers L&C	62
5	MassMutual	25
6	Allianz	24
7	UNUM	20
8	Lincoln Benefit	19
9	Prudential	19
10	Penn Treaty	18
11	New York Life	18
12	State Farm	15
13	Physicians Mutual	13
14	MedAmerica	11
15	Mutual of Omaha	9
16	Equitable L&C	8
17	State Life	8
18	Knights of Columbus	4
19	Kanawha	4
20	AFLAC	3

Source: 7th Annual LTC Insurance Survey, Broker World Magazine

Top 10 Individual Writers in 2011

Rank	Company	Production ($millions)
1	Genworth	207
2	Northwestern	68
3	John Hancock	52
4	Mutual of Omaha/United	45
5	Prudential	39
6	New York Life	28
7	MassMutual	20
8	Bankers L&C	17
9	Transamerica	14
10	State Farm	13

Source: 14th Annual LTC Insurance Surveys, Broker World Magazine

Out of Market Prior to 2004

Travelers

CNA

Conseco

Fortis

IDS

Thrivent (getting back in)

Aegon (got back in under Transamerica)

Source: 7th and 14th Annual LTC Insurance Surveys, Broker World Magazine

Out of Market Between 2004-2011

MetLife	Physicians Mutual
Allianz	Equitable L&C
UNUM	State Life
Lincoln Benefit	Kanawha
PennTreaty	AFLAC

Source: 7th and 14th Annual LTC Insurance Surveys, Broker World Magazine

Out of Market in 2012

Prudential

CUNA Mutual

AIG

American Fidelity

Berkshire

Source: 14th Annual LTC Insurance Surveys, Broker World Magazine

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What has caused the turmoil?

- Lapse Rates—very low, less than 1%
- Interest Rates—very low, 3 to 4% new money
- Mortality—extremely low
- Morbidity—claims quite close for some, very high for others

2011 Sales Characteristics from 2012 Broker World Survey

- Estimated 2011 Sales: $537.3 million premium, 231,100 policies; 1.4% increase over 2010
- Top 10 insurers wrote 93.6% of the business
- Significant rate increases and discontinuance of some features/options
- Average premium was $2,322
- Comprehensive Coverage (96.1%)
- Tax-Qualified (99.1%)

Source: Internal Milliman Study

2011 Sales Characteristics from 2012 Broker World Survey, cont.

- Average Issue Age 58.1 (vs. 61.3 in 2004)
- 57.3% compound inflation protection, 9.7% simple inflation, 12.8% future purchase option, 11.0% other, 9.2% no inflation
- 12.7% lifetime benefit period (down from 33.2% in 2004)
- 91.0% 84+ day elimination periods on NH (up from 70.5% in 2004)
- 21.7% of new premium in multi-life situations

Source: Internal Milliman Study

Risky Characteristics

- Lifetime benefit period
- Short elimination periods
- Cash benefits
- Compound inflation, due to greater build-up of reserves and therefore susceptibility to investment income and low lapses

Economics of LTCI

- Lifetime Loss Ratio Target of 55 percent – 60 percent:
  - Level issue-age premium
  - Steep morbidity curve – similar to mortality
  - Deferred benefit – very low loss ratios for many years
- Heaped Commissions
  - First year cash flow drain

Economics of LTCI, cont.

- Low lapse rates
- Conservative statutory reserve standards (revised in 2004)
- Significant Risk-Based Capital requirements (RBC)
- Commissions, reserves and RBC all lead to early duration statutory surplus strain

ABC Life Insurance Company
Base Assumptions - Expected Durational Profits
20 Percent Profit Premiums – All Ages Combined

Item	No Inflation – Policy Year					
	1	2	3	4	10	Lifetime @ 5.25%
Premiums	100.0	100.0	100.0	100.0	100.0	100.0%
Investment Income	(0.9)	4.1	7.1	10.2	30.4	29.0
TOTAL	99.1	104.1	107.1	110.2	130.4	129.0
Claims Incurred	5.1	9.2	12.6	15.8	42.9	46.0*
Δ Additional Reserves	0.0	52.0	49.8	48.7	38.4	23.7
Commissions	104.3	14.9	14.9	14.8	14.5	21.9
Expenses	24.5	11.6	11.9	12.4	15.6	17.4
TOTAL	133.9	87.7	89.2	91.7	111.3	109.0
Pre-Tax Profit	-34.7	16.4	17.9	18.5	19.1	20.0%

*** 51.3% discounted at 4.0%.**

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Item	With Inflation – Policy Year					
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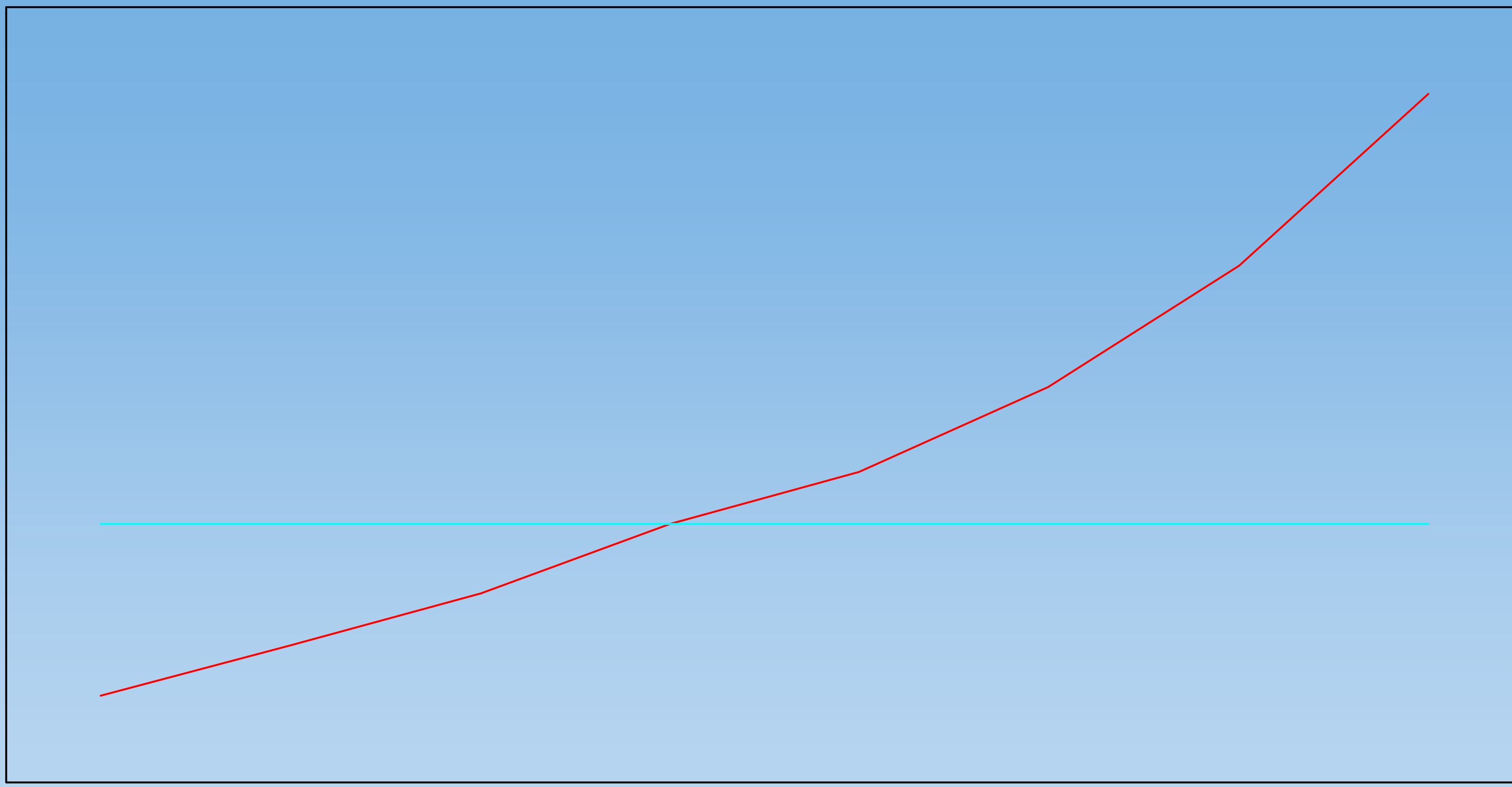
Premiums Investment Income	100.0 (0.5) 99.5	100.0 4.1 104.1	100.0 8.8 108.8	100.0 13.6 113.6	100.0 48.6 148.6	100.0% 73.6 173.6
Claims Incurred Δ Additional Reserves Commissions Expenses TOTAL	1.0 0.0 104.9 17.5 123.4	2.0 83.5 15.0 8.9 109.3	2.9 84.0 15.0 9.0 110.9	3.8 86.2 15.0 9.2 114.2	13.2 109.9 14.9 10.3 148.4	53.8 67.2 19.5 13.1 153.6
Pre-Tax Profit	-23.9	-5.2	-2.1	-0.6	0.3	20.0%

* 67.2% discounted at 4.0%.

Importance of Lapse Rates



Source: Internal Milliman Study

Lapse Rate Trends
Pricing Assumptions – Age 65-69

Early Policy Generations			
Policy Year	Company A	Company B	Company C
1	18%	20%	40%
2	14	15	20
3	10	10	8
4	7	8	8
5+	7	6	8

Source: Internal Milliman Study

Recent Lapse Experience

Policy Year	Company D	Company E	Company F	Company G
1	2.0%	4.0%	7.0%	6.5%
2	1.5	2.5	4.2	4.5
3	1.0	2.0	2.7	3.5
4	1.0	1.5	2.1	2.5
5	1.0	1.5	2.0	1.5
6+	1.0	1.0	1.5	1.5

Source: Internal Milliman Study

Effect of Termination Rates on Number of Insureds Inforce

Beginning of Policy Year	Original Pricing*	Revised**
0	**1000**	**1000**
6	**498**	**865**
11	**365**	**822**
16	**268**	**782**
21	**197**	**744**

* Original total terminations = 20%, 15%, 10%, 8%, 6%

** Revised total terminations = 5%, 3.2%, 2.2%, 1.6%, 1.3%, 1.0%

Source: Internal Milliman Study

ABC Life Insurance Company
Effect of Lower Lapse Rates

	Priced Lapses	Revised Lapses
Year 1	**8.0%**	**5.0%**
Year 2	**5.0**	**3.2**
Year 3	**3.5**	**2.2**
Year 4	**2.5**	**1.6**
Year 5	**2.0**	**1.3**
Years 6+	**1.5**	**1.0**

Source: Internal Milliman Study

ABC Life Insurance Company
Effect of Lower Lapse Rates

Item (as a percent of premium)	Age 52	Age 62	Age 72	Total
Pre-Tax Profit (No Inflation)	**17.5**	**18.3**	**19.5**	**18.5%**
Premium Change Needed	**4.2**	**3.1**	**1.1**	**2.8%**
Pre-Tax Profit (With Inflation)	**15.3**	**17.2**	**19.0**	**15.4%**
Premium Change Needed	**8.0**	**5.0**	**2.0**	**7.8%**

Source: Internal Milliman Study

ABC Life Insurance Company
Effect of Change in Investment Income

Revised Investment Income Rate = 4.25% (Down 100bp)

Item (as a percent of premium)	Age 52	Age 62	Age 72	Total
Pre-Tax Profit (No Inflation)	**13.7**	**15.3**	**17.6**	**15.6%**
Premium Change Needed	**10.8**	**8.5**	**5.0**	**8.1%**
Pre-Tax Profit (With Inflation)	**9.2**	**13.2**	**16.8**	**9.6%**
Premium Change Needed	**18.3**	**12.3**	**6.7**	**18.0%**

Source: Internal Milliman Study

ABC Life Insurance Company
Effect of Loose Underwriting*

Item (as percent of premium)	Age 52	Age 62	Age 72	Total
Pre-Tax Profit (No Inflation)	**5.8**	**4.5**	**5.8**	**5.7%**
Premium Change Needed	**24.4**	**28.3**	**30.3**	**27.2%**
Pre-Tax Profit (With Inflation)	**4.9**	**5.3**	**7.8**	**5.1%**
Premium Change Needed	**25.9**	**26.8**	**26.1**	**25.9%**

* Assuming “moderate” was priced for

Source: Internal Milliman Study

Example of Lifetime Pricing Effect for Sample Company

- Original pricing done 15 years ago (1997)
- Original investment earnings rate = 6.9 percent
- Current investment earnings rate = 4.5 percent
- Original ultimate lapse rate = 4.75 percent
- Current ultimate lapse rate = 1.0 percent
- Morbidity 10 percent higher than originally assumed

Source: Internal Milliman Study

Effect of Revised Assumptions on Lifetime Profits

Age Band	Original Pre-tax Profit % of Premium @ 6.9%	Original Statutory IRR	Revised Pre-tax Profit % of Premium @ 4.5%	Revised Statutory IRR
55-59	**31.8%**	**15.2%**	**-32.3%**	**-0.5%**
65-69	**21.2%**	**15.0%**	**-20.5%**	**-2.3%**
75-79	**13.2%**	**14.4%**	**-7.0%**	**-1.6%**
All	**25.1%**	**15.1%**	**-24.8%**	**-0.9%**
Cumulative loss ratio through 15 durations, at ii rate	**24.9%**		**33.2%**	
Lifetime loss ratio at 4.0%	**62.3%**		**104.6%**	

Source: Internal Milliman Study

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ABC Life Insurance Company
Other Factors Affecting Profits

- Male/female split assumed/where it's applied
- Age distribution
- Distribution by BP/EP
- Percent of insureds that are married
- Spouse/preferred risk discounts
- Average policy size
- Expenses varying by age
- Reserve assumptions
- Margins for adverse deviation
- Salvage on maximum benefits

Source: Internal Milliman Study

Why the Turmoil?

Companies Leaving the Market:

- Lapse rates, interest rates, & mortality: low
- Morbidity - claims quite close to pricing for some, very far off for others (depending on aggressiveness of original pricing and on underwriting)
- Concerns about profitability and being able to get rate increases
- Felt that capital was better invested elsewhere (would yield more immediate results)

Why the Turmoil?, cont.

Producer Concerns:

- Rate increases & fewer company choices
- Product complexity
- Rates on new products 40%+ above levels available five years ago

LIMRA 2012 LTC Opinion Survey:

- 47% out of 83 people expect strong to moderate growth going forward
- 75% projected strong to moderate growth for life combos and 66% for annuity combos
- Demographics, greater consumer awareness and need for the product are biggest reasons for optimism
- Industry stability and the economy (interest rates) are biggest reasons for pessimism
- 75% believe Medicare and Medicaid will NOT offer more benefits in next 20 years
- To increase the market, the products need to be made more affordable and simplified

Society of Actuaries LTC Work Group

- Exploring various ideas that could make the product more attractive to companies, consumers, agents and regulators
- Examples – shorter benefit periods, longer elimination periods, "universal" LTC, mandatory agent training, varying premiums with interest rates, removing the requirements for 5% compound offer and non-forfeiture offer, etc.
- Most ideas presented would require some regulatory change, and few would be "enough" to entice the companies who've exited to come back in

Summary

- Premiums have increased, due to updated lapse assumptions and interest
- Rates have stabilized, but there are still significant differences in market premiums
- Product is capital intensive and still somewhat risky
- But…demographics are hard to ignore, and probability for healthy profit is higher than ever
- So is there a better way to address the need?

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