

Impact of Recent Valuation Mortality and Interest Changes for Life Insurance Products

ACSW Meeting, Nov. 11, 2005

Presented by: Glenn Tobleman

Lewis & Ellis, Inc.

“The Times They Are A-Changin’ ”

Robert Allen Zimmerman, 1964

a.k.a. Bob Dylan

Two Major Changes

- a) Valuation Interest Rate drops to 4.0% for life policies issued after 12/31/2005
- b) 2001 CSO Mortality Tables

Important Facts About the Standard Valuation and Standard Nonforfeiture Laws

Prescribe formulas for setting reserves and cash values

Formulas include maximum interest rates indexed to
Moody's Corporate Bond Yield

Formulas include defined mortality tables

Valuation Interest Rates

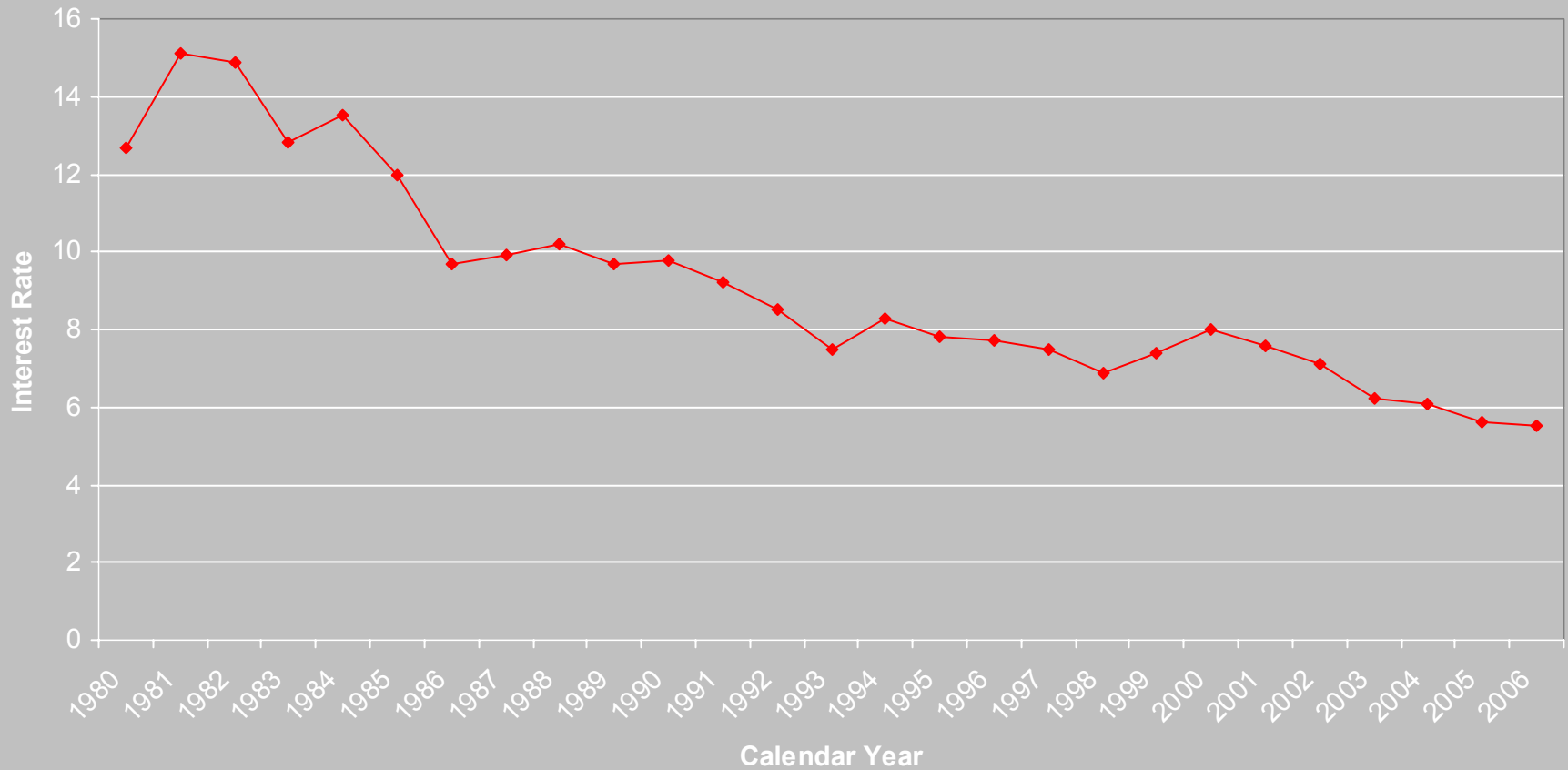
Current valuation rate for long duration life contracts has been 4.50%

Last changed in 1995

Formula for valuation interest rate uses the lesser of 36-month or 12-month average ending June 30 prior to the year of policy issue

Long Term Corp. Rates

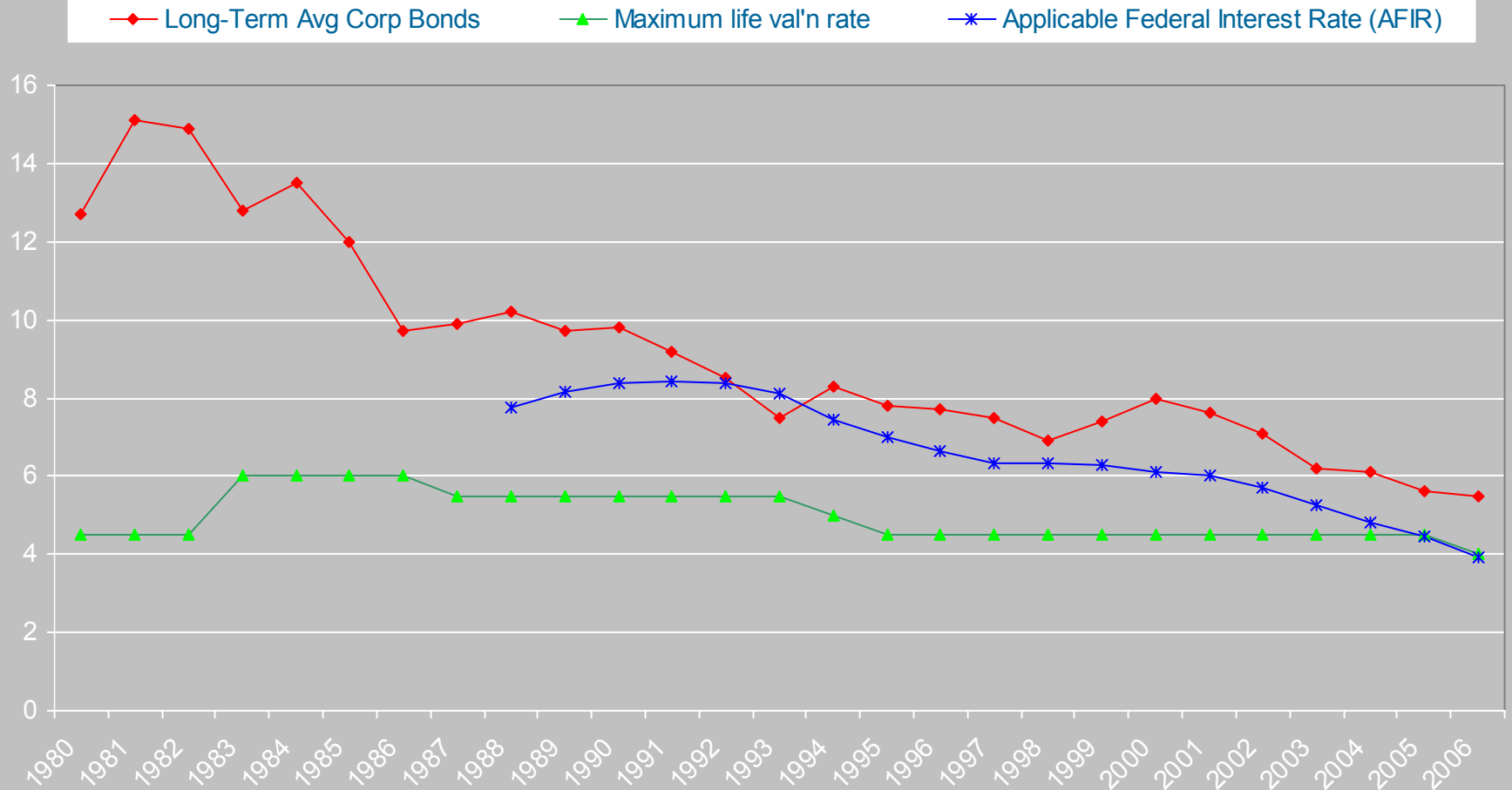
◆ Long-Term Avg Corp Bonds



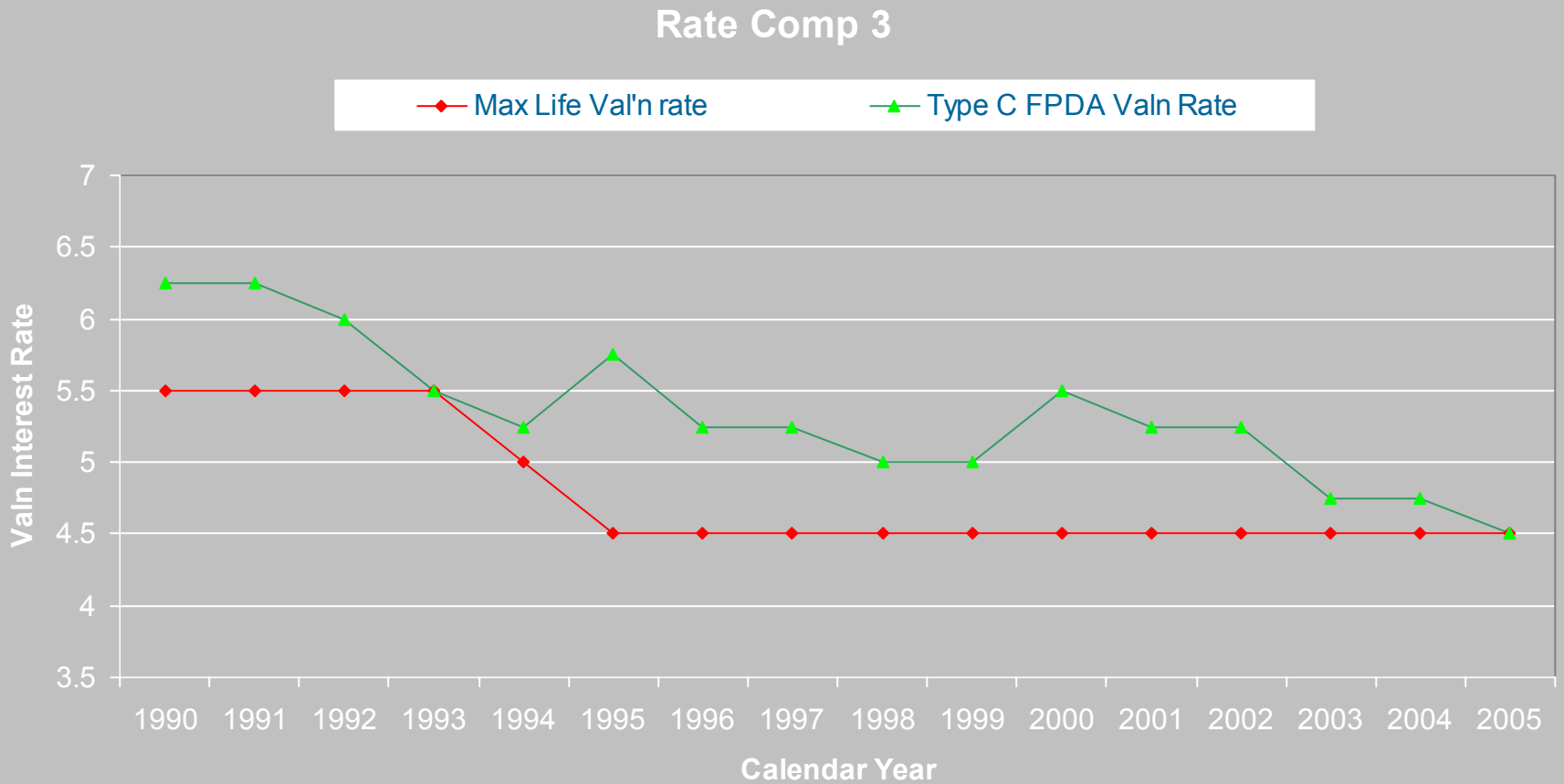
Rate Comparison 1



Rate Comparison 2



Rate Comparison 3



Why did it take so long?

- a) Intentional lag
- b) 50 basis points threshold for change
- c) A two-edged sword

Impact on Life Products

- a) Higher Minimum Reserves
- b) Higher Minimum Cash Values
- c) Re-filing of products
- d) Deficiency Reserve Issues

National Underwriters Article

POTENTIAL PREMIUM CHANGES NEEDED TO RESTORE ORIGINAL PRE-TAX PROFITABILITY

(After the maximum statutory valuation interest rate decreases from 4.5% to 4.0%)

**UL without
secondary
guarantees**

**Term
10/10**

**Term
20/20**

**Term
30/30**

**Premium
Increase to
restore
profitability**

3-10%

1-4%

2-6%

3-7%

Source: Dale J. Visser, Milliman, Inc., Lake Forest, Ill.

Impact of Valuation Interest Rate Change

Traditional Whole Life – Age 45 – Male Nonsmoker

4.50% Reserve & 5.75% CV

<u>ROE</u>	<u>% Prem</u>	<u>Breakeven</u>
15.20%	6.05%	7.52 Yrs

4.00% Reserve & 5.00% CV

<u>ROE</u>	<u>% Prem</u>	<u>Breakeven</u>
11.34%	3.93%	12.07 Yrs

A 4% increase in the premium is needed to reestablish profit margins

Deficiency Reserves

Could occur on any plan where guaranteed gross premiums are set equal to the valuation net premiums using the 4.50% rate

Most likely to affect term plans, term riders and traditional life plans

Deficiency reserves deplete surplus and lower ROE

Universal life contracts with 4.50% interest rate guarantees could result in additional reserves

Nonforfeiture Values

One year deferral on the maximum nonforfeiture interest rate changes

Maximum 5.00% rate would not be required until 2007

Universal life surrender charges may no longer comply

Re-filing Procedures

Example: UL Product with 4.5% interest rate guaranty

Insurer wants to lower interest rate guaranty to 4.0%

Wants to re-file in Texas

Re-filing Procedures

a) Does not require a “start from scratch” filing

b) Limited re-filing includes

- Highlight changes in policy
- Provide new SNFL demonstration
- More complicated if lowering rate below 4%

WL – Net Premiums

Whole Life Endowment at 100, Male age 45
1980 CSO ALB, semi-continuous reserves

Renewal Net Premium

Val Rate	4.50%	\$20.63
Val Rate	4.00%	\$21.76
Increase		5.5%

WL – Terminal Reserves

Whole Life Endowment at 100, Male age 45
1980 CSO ALB, semi-continuous reserves

Terminal Reserve

At End of Year	5	10	20	30
Val Rate 4.5%	68.15	161.88	368.87	578.03
Val Rate 4.0%	72.33	170.41	382.38	591.25
Increase	6.1%	5.3%	3.7%	2.3%

WL – Minimum Cash Values

Whole Life Endowment at 100, Male age 45
1980 CSO ALB, minimum NFF values

Cash Value

At End of Year	5	10	20	30
NFF Rate 5.75%	40.78	123.63	316.19	522.77
NFF Rate 5.0%	46.00	134.97	335.62	543.39
Increase	12.8%	9.2%	6.1%	3.9%

Single Premium – Net Premiums

Single Premium Endowment at 100, Male age 70
1980 CSO ALB, semi-continuous reserves

Valuation Net Premium

Val Rate	4.50%	\$ 650.02
Val Rate	4.00%	\$ 678.76
Increase		4.4%

Single Premium – Terminal Reserves

Single Premium Endowment at 100, Male age 70
 1980 CSO ALB, semi-continuous reserves

Terminal Reserve

At End of Year	5	10	15	20
Val Rate 4.5%	719.80	781.32	834.88	878.04
Val Rate 4.0%	744.19	801.34	850.64	890.14
Increase	3.4%	2.6%	1.9%	1.4%

Single Premium – Minimum Cash Values

Single Premium Endowment at 100, Male age 70
1980 CSO ALB, minimum NFF values

Cash Value

At End of Year	5	10	15	20
Rate 5.75%	645.95	714.63	775.71	825.67
Rate 5.0%	679.86	743.74	799.83	845.31
Increase	5.2%	4.1%	3.1%	2.4%

2001 CSO Mortality Table

- a) Louisiana is the latest state to adopt (11/1/2005)
- b) Now effective in all 50 states
- c) Wyoming – permitted, but no effective date
- d) Mandatory date of 1-1-2009

2001 CSO Mortality Table

$q(120) = 1$, so endowment at 121 policies possible

Most other life valuation tables end at 100

Why the new table?

- a) More competitive products?
- b) Reserve relief for term writers?
- c) It was time?
- d) IRS!

2001 CSO Reaction Is Everybody Happy?

- a) Preferred writers – Too conservative
- b) Final expense / pre-need – Too liberal
- c) UL products – Thanks, but ...
- d) Other products – just right?
- e) Principles based reserving

UL COI Rates

Guideline Level and Single Premiums

Generally about 15% to 20% less than 1980 CSO

Margins in COI Rates

Male Nonsmoker, Age 45

Pricing Mortality Assumption = 85% of 2001 VBT MNS

Maximum Guaranteed COI rates = 1980 CSO MNS

Duration	1	5	10	15	20
Pricing q_x	0.51	1.28	2.80	5.16	9.34
Val q_x	3.32	4.54	7.09	11.47	19.02
Margin	85%	72%	61%	55%	51%

Margins in COI Rates

Male Nonsmoker, Age 45

Pricing Mortality Assumption = 85% of 2001 VBT MNS

Maximum Guaranteed COI rates = 2001 CSO MNS

Duration	1	5	10	15	20
Pricing q_x	0.51	1.28	2.80	5.16	9.34
Val q_x	2.33	3.09	4.87	8.10	13.95
Margin	78%	58%	43%	36%	33%

Section 7702 Issues

Hardwired Entries

- a) Guideline premium interest rates
- b) Computational Rules – Maturity Age
- c) Death benefit corridor %

These may require an act of Congress to change

Section 7702 Issues

Guideline Premium Interest Rates

- a) Guideline Single premium – 6.0%
- b) Guideline Level premium – 4.0%

Section 7702 Issues

Mortality Charges

- a) Clarification in 1988 from Treasury
- b) Guaranteed mortality charges must be “reasonable”
- c) Permanent and interim rules
- d) Treasury Secretary directed to issue rules in 1990
- e) We’re still waiting!
- f) “Safe Harbor” rates (Notice 88-128)

Safe Harbor Rates

“Reasonable mortality cannot exceed the rates in the prevailing commissioners’ standard table at the time the contract is issued.”

In July of 2004, 2001 CSO Table became the prevailing table.

Need for clarification.

Safe Harbor Rates

Notice 2004-61

Issued in fall of 2004, clarifies transition rules

1980 CSO remains safe harbor, as long as:

- a) Mortality charges don't exceed 1980 CSO table
- b) Mortality charges don't exceed contract guarantees
- c) Contract issued in state that permits use of 1980 CSO at the time contract is issued, and prior to 1-1-2009
- d) Caveat: This is not tax advice!

Section 7702 Issues

Computational Rules

Section 7702 (e) (1) (b)

(B) the maturity date, including the date on which any benefit described in sub-paragraph (C) is payable, shall be no earlier than the day on which the insured attains age 95, and no later than the day on which the insured attains age 100, ...

Section 7702 Issues

Dilemma

2001 CSO Table is prevailing table

2001 CSO Table lasts to age 121

Computation rules seem to prohibit going beyond age 100

Section 7702 Issues

Possible approaches

- a) Endowment at 121 – but flies in face of comp rules
- b) Endowment at 100 – Cuts off tail of the mortality table
- c) Endowment at 100, extended maturity benefit

Conclusions / Observations

- ❖ Actuarial employment act of 2005
- ❖ Change in valuation interest rate in and of itself is not difficult. However, need to know impact on profit.
- ❖ Need to find out if re-filing is required. If it is, work with compliance to see what needs to be done.
- ❖ SOA Tax task force is looking into 7702 issues
- ❖ ACLI is very interested in 7702 issues
- ❖ UL companies reluctant to switch to 2001 CSO

Questions

- ❖ When will the Treasury clarify “reasonable” mortality and expense charges?
- ❖ Will Congress re-open Section 7702 and 7702A with respect to interest rates and endowment age?
- ❖ Your questions?