Product Development Symposium

How's Life? An Overview of the Permanent Life Market

Scott Witt

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2001 CSO – Whole Life

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Impact of 2001 CSO on WL

- Assuming dividends purchase additions and no other pricing changes
  - Lowers net premiums
  - Lowers reserves
  - Increases early dividends
  - Skews product further towards protection

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Impact of 2001 CSO on WL Accumulation-Oriented Designs

- Lowers MEC limits
- Widens competitive disadvantage with UL
  - Cash value accumulation test vs. guideline premium test

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Mortality Basis Considerations

- Select & Ultimate vs. Ultimate
  - Sel & Ult lowers net premiums but increases reserves
- Composite vs. Smoker-Distinct
  - For non-smokers, non-smoker table lowers net premiums and reserves
    - Increases early expense recovery ability
- Composite Ultimate maximizes MEC limits for non-smokers
- Other considerations

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Valuation Interest Rate

- Maximum rate may drop from 4.5% to 4% for 2005 issues
- Cannot go below 4% due to def'n of life ins. (CVAT)

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Considerations in Setting Gross Premiums

- Continuity
- Safety
- Expense amortization flexibility
- Competitive positioning
- Expectations of distribution system
- Premium-paying period

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UL with Secondary Guarantees (ULSG)

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UL with Secondary Guarantees

- Hotbed of activity
- Insightful to go through pricing exercise
  - Single cell
    - Male, Issue age 65, Preferred Non-smoker, $1 million face amount, level premium, lifetime guarantee
  - Justify to senior management
- Perspective of an outsider

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Baseline Assumptions

- Earned rate = 5%
- Lapse rate = 1%
- Mortality = 50% of 2001 VBT for 20 years, grading up 2% annually for 25 years
- Reserves consistent with spirit of XXX/AXXX (2001 CSO)
- Expenses – used industry averages
  - Relatively immaterial
- Modest cash values (moderate lapse support)
- Target surplus – roughly 200% of company action level
- Pricing ROI = 12%

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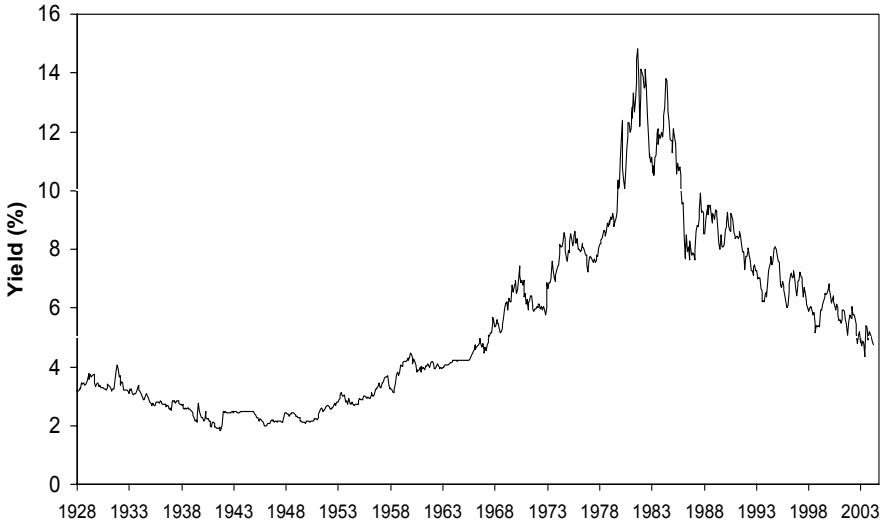
Long-Term Govmt. Bond Yields

Source: Ibbotson, Approx. Maturity of 20 Years



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Lapse Rates

- Upper bound: Experience on cash value products
  - ULSG market is sophisticated and needs-based
  - No cash values
    - Canadian T100 experience
      - Ultimate rates below 2% for similar markets
    - Long-term care experience
      - Ultimate rates close to 1%
  - Life settlement companies / viaticals
  - Mentality triggered by any company action that indicates underpricing (media attention, etc.)
  - Existence of back-to-back arrangements

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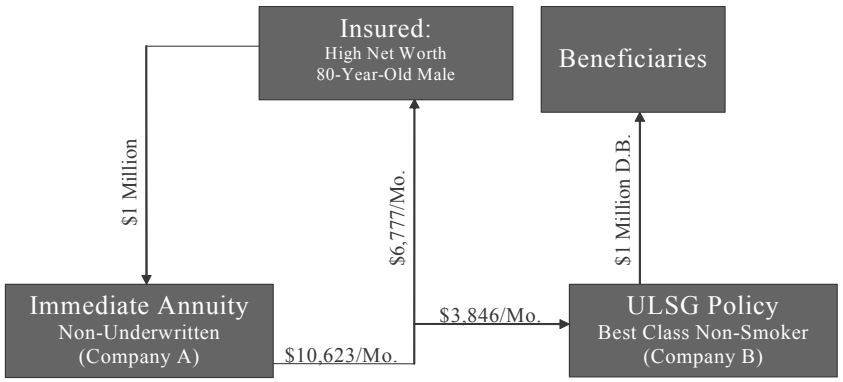
Annuity/ULSG Arbitrage

Based on 4/14/2004 Quotes



Insured gets annualized return of 8.44% guaranteed for his life.

Initial capital is preserved and passed on to beneficiaries income tax-free.

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Baseline Results

- ULSG premium per $1000 = $32
  - IRR = 12.0%
- How does this premium stack up?
  - $46 1980 CSO/4% NLP (unloaded)
  - $36 2001 CSO/4% NLP (unloaded)
  - $32 Experience premium @ 5%

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Senior Management Perspective

- We're now willing to guarantee today's experience premiums?
- More downside risk than traditional WL
- More upside potential than traditional WL
  - Assuming better-than-priced-for experience is not passed on to ULSG policyholders
- Are the folks who are taking the risk being properly compensated?

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Competitive Considerations

- Want to be at 25th percentile
  - Need to cut premium to 20.7 per $1000
    - 35% reduction in premium
- Baseline assumptions with premium at 20.7
  - ROI = 0.9%
  - CV peaks at $115 per $1000 at age 80 (down from $420 per $1000 at age 80)

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Assumptions Revisited

- Increase earned rate to 6% (and credited rate to 5%)
  - ROI = 3.7%
  - CV peaks at $125 per $1000 at age 81
- And increase lapse rate to 4%
  - ROI = 6.4%
- And wipe out cash value entirely
  - May need to do this anyway to pass illustration tests
  - ROI = 7.8%

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Assumptions Revisited (cont.)

- And change mortality assumption to 30% of 75-80 Basic Table
  - ROI = 9.1%
- And change to "economic" reserves
  - Assumes shadow fund design
  - 2001 VBT, 5%, assumed expenses, and 2% lapses
  - Eliminates deficiency reserves
  - ROI = 12.7%

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Economic Reserves

- Some feel that reserves required under XXX are redundant
- AXXX attempted to close loopholes in XXX
  - Including shadow fund designs
- But, shadow funds can be designed to
  - Avoid or minimize deficiency reserves
  - Push reserves down to "economic" level or lower
    - Discounted for lapses

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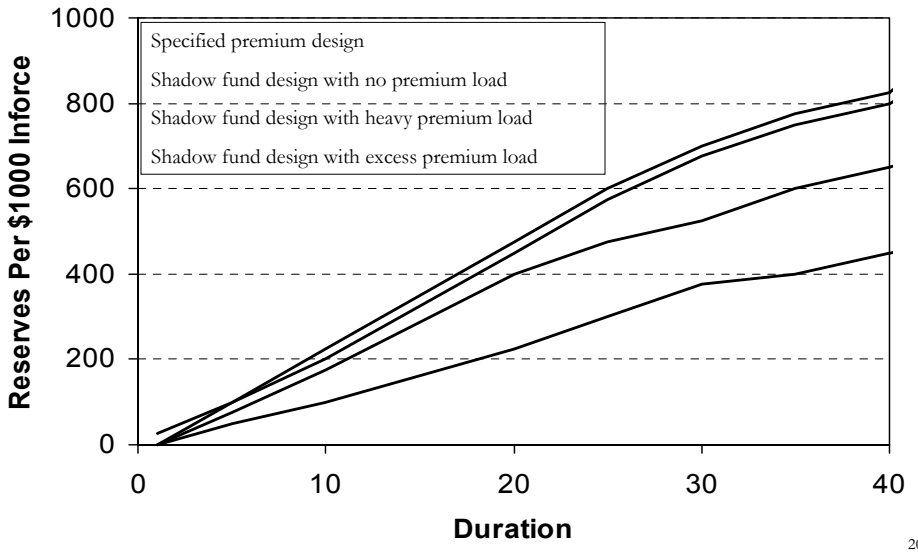
AXXX Under Various Designs

All Level Premium, M, 55, Best Class



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AG AXXX Introduction

- " . . . common sense and professional responsibility are needed to assure compliance with both the letter and the spirit of the law. While the Model is a complex regulation, its intent is clear: reserves need to be established for the guarantees provided by a policy. Policy designs which are created to simply disguise those guarantees or exploit a perceived loophole must be reserved in a manner similar to more typical designs with similar guarantees."

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An Illustrative Example

- Joint life ULSG premium M75/F75, both best class non-smokers
  - $19 per $1000 annual premium for lifetime guarantee
- Estimated life expectancy: 20 years
- Interest rate required for gross premium to accumulate to $1000 in 20 years:
  - 8.52%
  - What about expenses and profit?

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Keys to Developing Competitive ULSG Premiums

- Lapse-supported pricing
- Minimize XXX/AXXX reserves
- Aggressive mortality assumptions
- Aggressive earned rate assumptions
- Assume various subsidies
  - Age distribution, premium pattern, etc.
- Tolerance for high risk / low reward

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What If All Consumers Act In Their Own Best Interest?

- No lapses
- No funding beyond minimum
- Reduction in non-ULSG business

- With no "losers" – who is left to pay for the subsidy?
  - Guaranty funds?
    - Most states limited to $300,000 per life

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Flat % of 75-80 Basic

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Demonstrative Example

- Male, Issue Age 65
- Assume 30% of 75-80 Basic is correct
- Can this somehow be linked to 2001 VBT?

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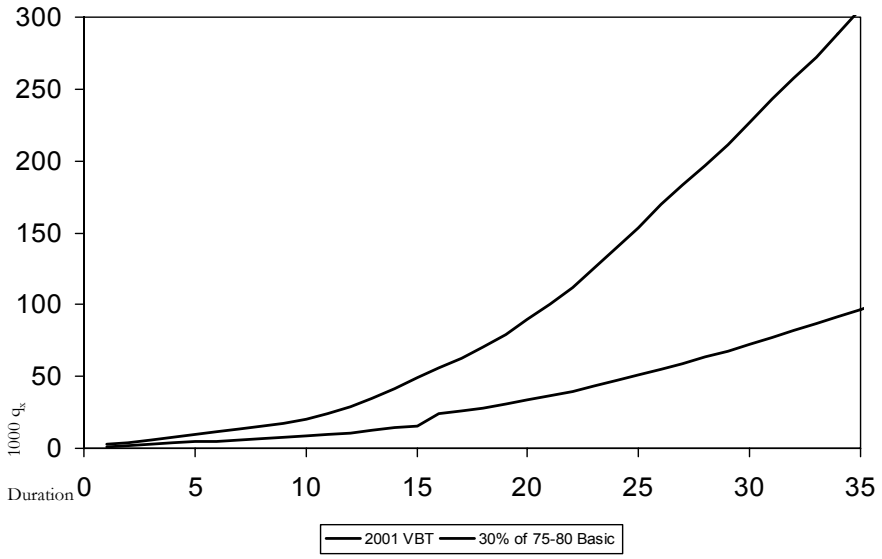
2001 VBT vs. 30% of 75-80 Basic



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Adjustments to 2001 VBT

- Make adjustments to reflect impact of blood testing
- Assume tested to non-tested mortality ratios of:
  - 80% in durations 1-10
  - Increasing by 1% per year in 11-30
  - 100% in years 30+
- Assume % of 2001 VBT experience that is blood-tested
  - 1-90%; 2-80%; 3-70%; and so on down to 0% in durations 10 and beyond

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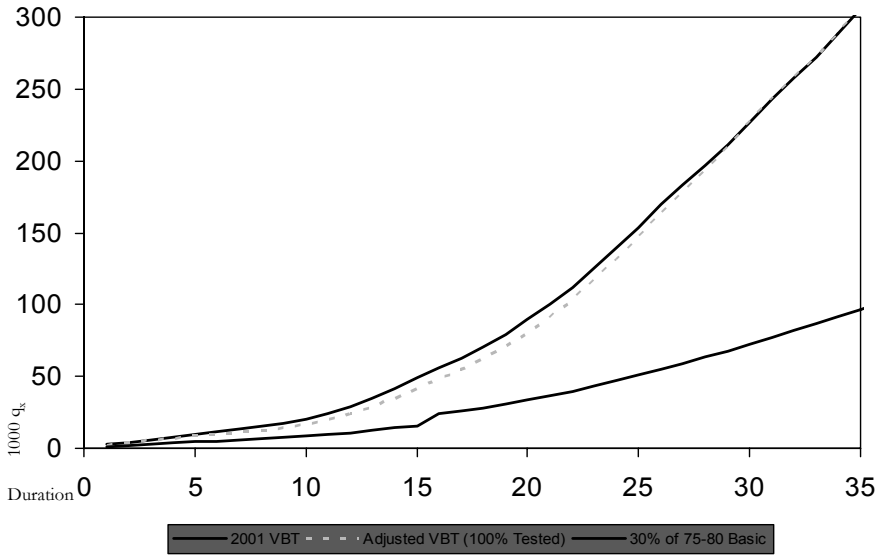
Assume 100% Blood Testing



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Adjust for Preferred Underwriting

- Assume 40% improvement in all duration
  - Simply for the sake of argument
  - Because value of underwriting wears off over time

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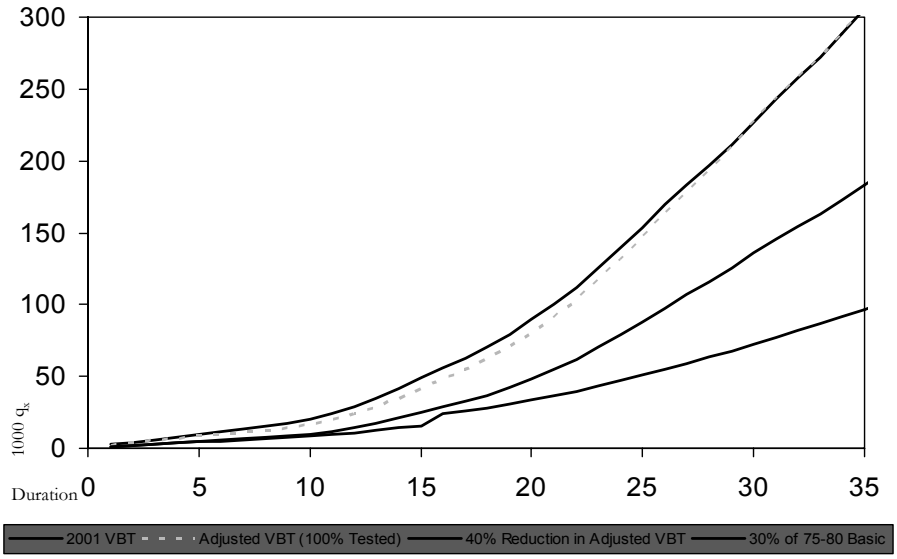
Assume 40% Permanent Reduction



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Adjust for Mortality Improvement

- Project 2% mortality improvement each and every year

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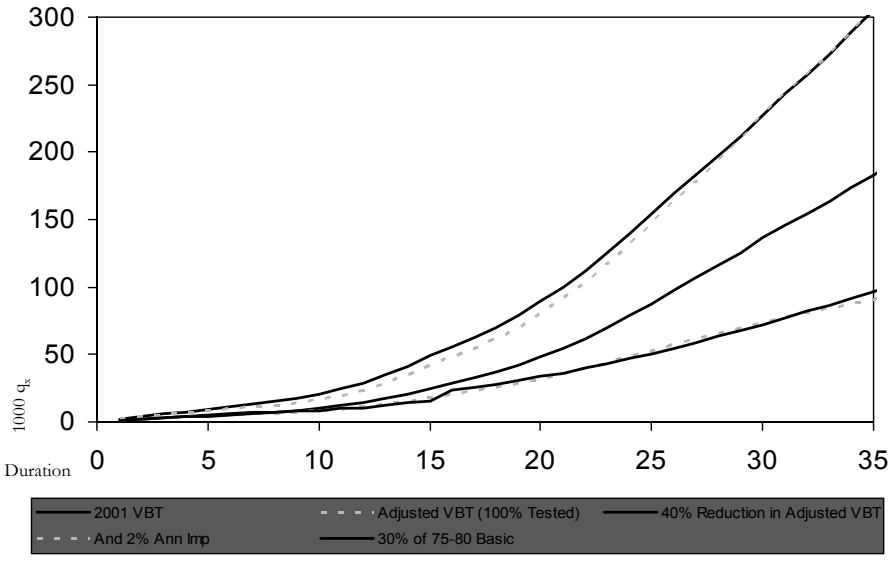
Project 2% Annual Improvement



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Summary

- 30% of 75-80 Basic may be appropriate if:
  - The 2001 VBT is adjusted to assume 100% blood-testing
  - Preferred underwriting lowers mortality 40% and the value lasts forever
  - Mortality is projected to improve 2% annually
- Do the last two adjustments seem realistic?
  - Would you be willing to guarantee them?
- Illustration Testing – use of projected mortality is not allowed
  - Seems to preclude use of flat percentage of 75-80 Basic

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