

Life Settlements

What you need to know*

September-October, 2010

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*connectedthinking

Agenda Part I: Our work as Auditors

- Background
- Accounting for Life Settlements (LS)
- What Do We Look For as Auditors
- Methodology
- Assumptions about Mortality
- LE Estimates
- Internal Rates of Return (IRR's)
- Recommended Disclosures

Background

- Larry is a Principal at PricewaterhouseCoopers in the Actuarial and Insurance Management Solutions Practice
- Twenty five plus years of experience as an actuary in the financial industry
 - Including three years at Bear Stearns as Managing Director
 - 17 years at TIAA-CREF in various positions with the most recent being Vice President of Finance and Chief Actuary
- Has been involved with life settlements from the beginning of the market.
 - Worked at Bear Stearns analyzing life settlements as an investor
 - Responsible for all of PwC's life settlement audit and advisory engagements globally

Life Settlement Clients:

- PwC has 16 audit clients and 11 consulting clients ranging from:
 - Hedge Funds
 - Investment Banks
 - Non-Life Insurance Companies (or non-life operations of Insurance Companies)
 - Offshore Mutual Funds
 - Pension Funds in Europe

Accounting Guidelines

FSP FTB 85-4: Accounting for Life Settlement Contracts by Third-Party Investors

- Defines what a life settlement contract is
- Provides accounting guidance
- Two methods are available
 - Investment Method
 - Fair Value Method

FAS 157: Fair Value Measurements

- Defines fair value, establishes a framework for measuring fair value in GAAP, and expands disclosures about fair value measurements.
- Provides guidance for life settlement portfolios valued using the Fair Value method under FSP FTB 85-4

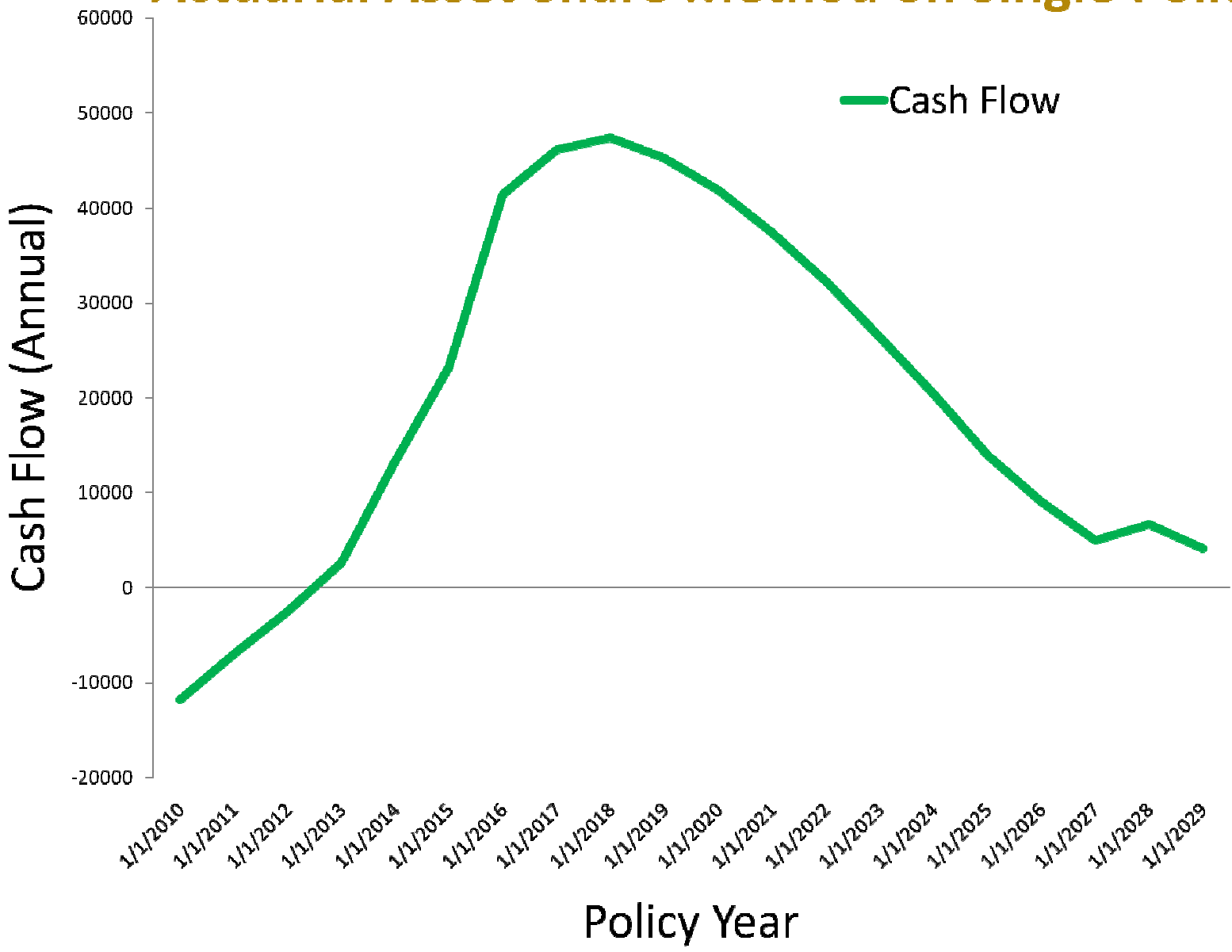
What do we look for as auditors?

- Do you have a reasonable estimate of what 3rd parties are willing to pay?
- Is there sufficient support for your position?

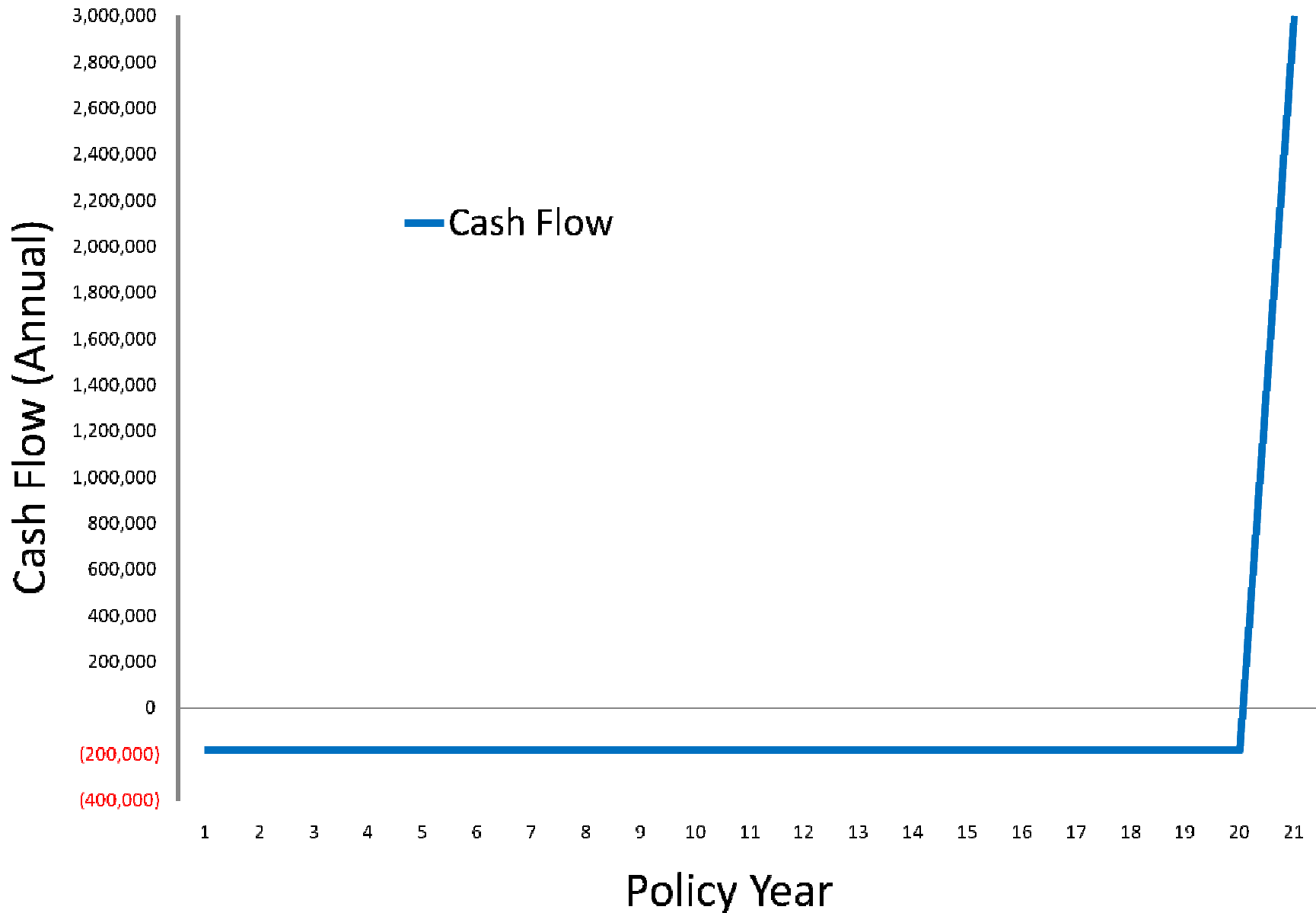
Methodology

- **Actuarial Asset Share** (Probabilistic Cash Flow)
 - Deterministic and Stochastic model
 - Assumes a percentage of the death benefit is received each month based on the probability of the insured dying in that month
 - And a percentage of premium is paid each month, based on the probability of the person surviving
- **Point-to-Point**
 - No longer used
 - Deterministic model

Actuarial Asset Share Method on Single Policy



Point to Point Cash Flow on Same Policy



Both Methods determine Portfolio Value as:

Value of Each Policy:
 $(\text{PV of Death Benefit}) - (\text{PV of future premiums}) =$
Asset Value

Value of Portfolio:
Sum of all Asset Values for each policy in the
Portfolio

Assumptions about Mortality

- Different Mortality Tables
 - By the end of 2008, most funds had moved to use the 2008 Valuation Basic Table (VBT)
 - Proprietary tables are also used in practice
- Different distributions
- FAS 157 impacts
 - Is your Fair Value consistent with other market participants?

FAS 157 Hierarchy

Three levels:

- **Level#1**: “quoted prices (unadjusted) in active markets or identical assets or liabilities that the reporting entity has the ability to access at the measurement date.”
- **Level #2**: “inputs other than quoted prices that are observable.”
- **Level #3**: use of “unobservable inputs.”
- **Most participants consider life settlements to be level 3 some believe that it is level 2.**

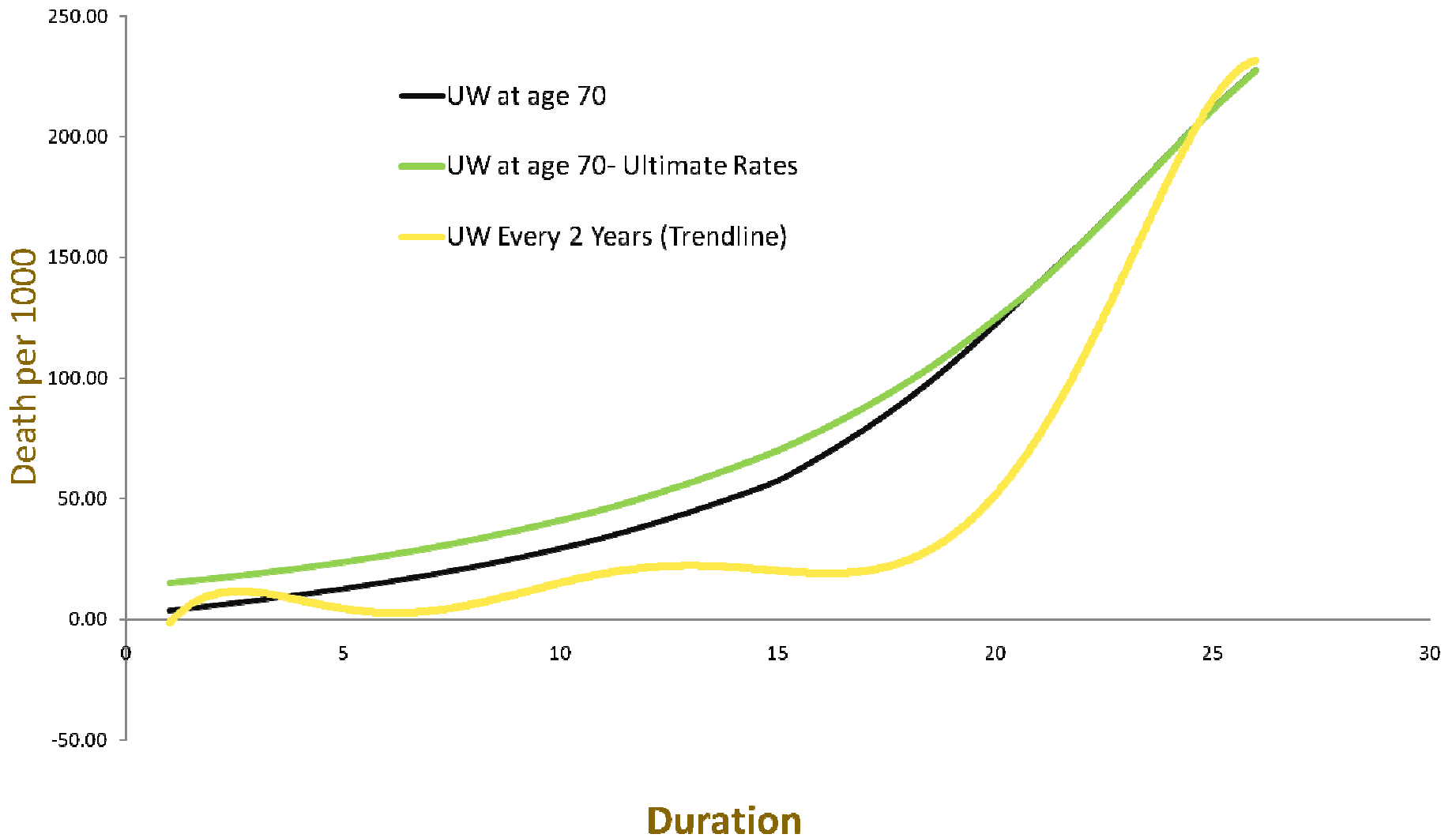
Life Expectancy

- Life Expectancy estimate is defined as the expected time to live as calculated on the basis of statistical probabilities
- LE provider is the U/W at time of settlement
- Periodic updating of LE
- Used to adjust the mortality curve to the specific individual

LE Estimates

Why mortality estimates need to be updated:

2008 VBT Mortality (ANB) Male NS



Internal Rate of Return (IRR's) Assumption

- Most funds derive a single level portfolio discount rate or use a weighted average portfolio rate.
- The discount rate is typically based on the implied discount rate obtained from their recent purchases in the last month or quarter prior to the valuation date.
- Cannot be based on historical purchase prices!

Recommended Disclosures

- Usage of proprietary tables for LE estimates
 - If they are used, disclose the differences between them and the 2008 VBT table.
- Any impact of non-standard assumptions that are made should also be disclosed
- FTB 85-4-1 disclosures
- Show sensitivities in terms of LE date

Agenda Part II: Our work as Consultants

- Recommendations
- Pricing Techniques
- Mortality Improvement
- Wealth Effect
- Portfolio Construction
- Understanding Risks
- Simulations

Recommendations

- Perform actual vs. expected study of underwriter or the portfolio manager
- Background check
- Experience with LE calculations
- If they don't disclose their data, consider whether you are comfortable relying on their opinion.

Pricing Techniques

- Mortality improvements
 - Mortality continues to improve
 - Should be taken into consideration in models
- Wealth Effect
 - Mortality tables are based on standard experience
 - High net worth individuals tend to have better than standard mortality experience
 - Significant impact on value/price
- Portfolio Construction
 - What to avoid
- Risk Analysis

Annual Mortality Improvement in Male Mortality

The 2008 VBT assumed mortality improvement of 1.0% per annum, grading to 0% by attained age 90

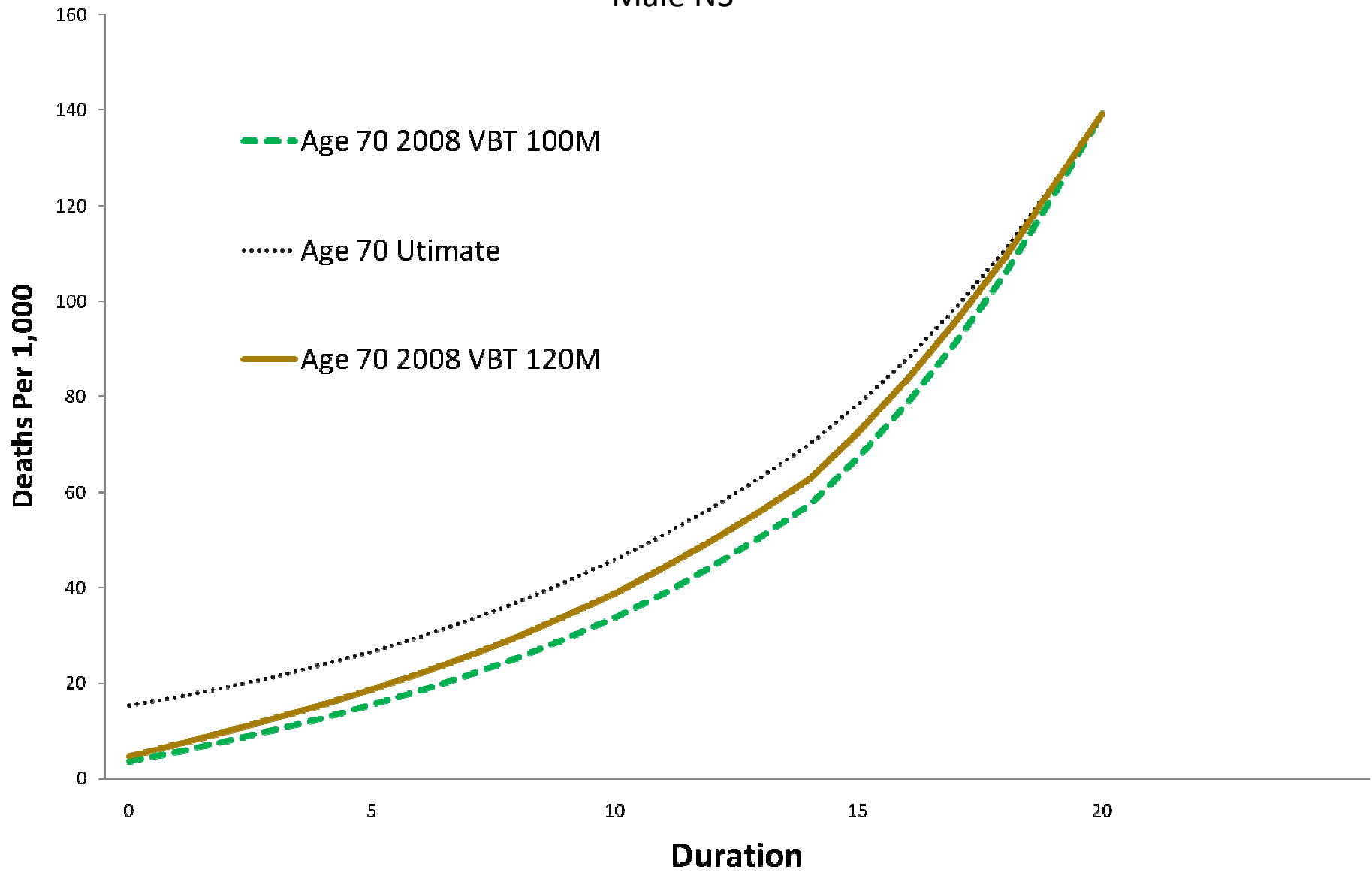
Attained Ages	2008 VBT	Population	Uninsured Pension RP-2000	Social Security	Federal Civil Service	Group Annuity Table
55-59	1.0%	2.0%	4.5%	1.8%	1.1%	1.8%
60-69	1.0%	1.6%	1.5%	1.0%	0.9%	1.2%
70-79	1.0%	1.0%	1.1%	1.1%	1.6%	2.3%
80+	grades from 1.0% to 0.0% by age 90	0.5%	0.2%	-0.5%	0.8%	1.3%

Thus, for the 2008 VBT Table an Actuary would typically:

- Start with A/E ratio as determined by an experience analysis of the underwriter
- Then modify it by adding a 1.0% per year mortality improvement

Senior Settlement Mortality Issue Age 70

Male NS



The Senior Settlement Market

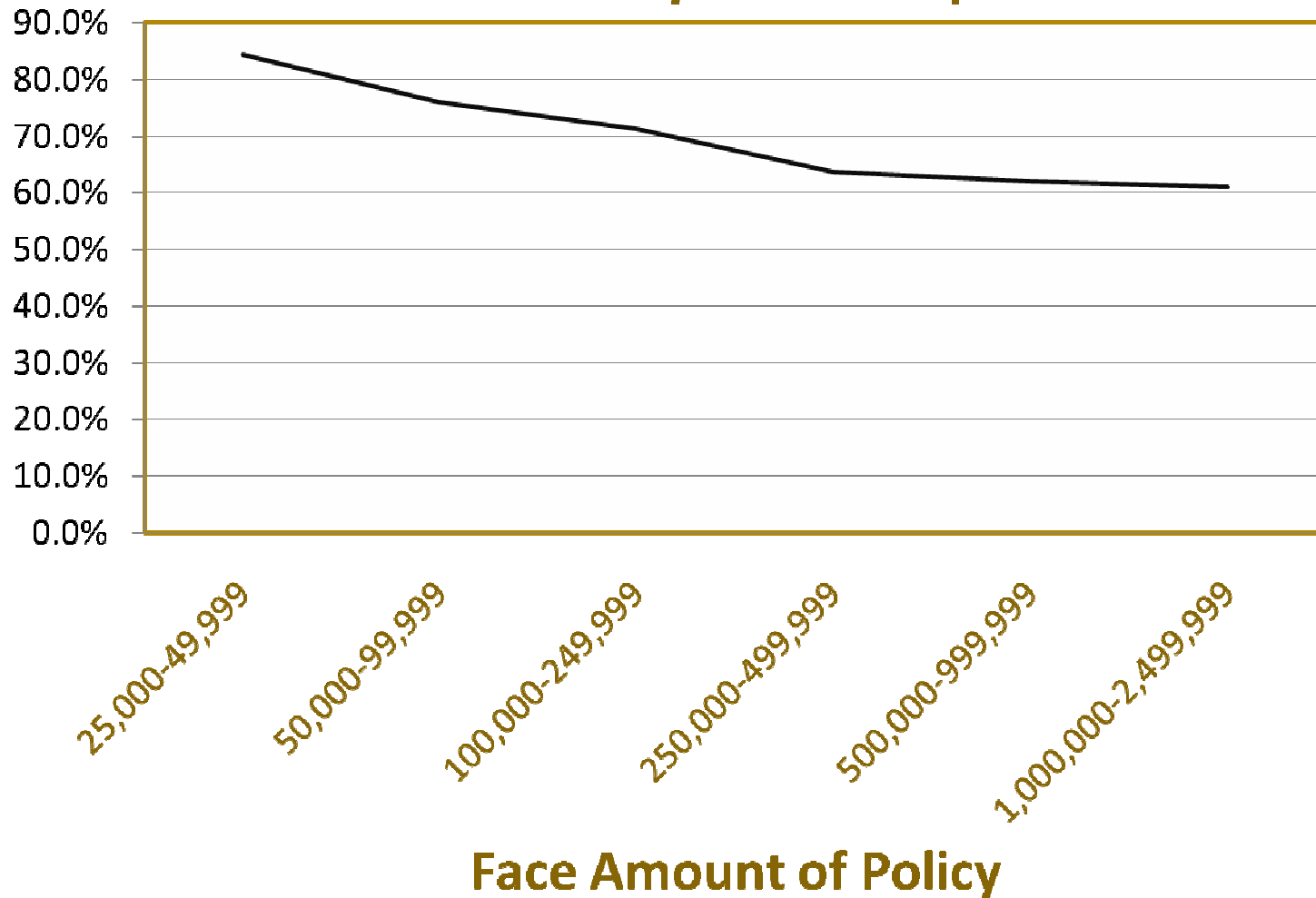
Life Expectancy Comparisons (Age 70)

- Life Expectancy – Ultimate (2008 VBT with 100% multiplier; 0% mortality improvement)
 - 15.6 Years
- Life Expectancy – 2008 VBT MNS (120% multiplier; 0% mortality improvement)
 - 16.9 Years
- Life Expectancy – 2008 VBT MNS (100% multiplier; 0% mortality improvement)
 - 18.1 Years
- Life Expectancy – 2008 VBT MNS (100% multiplier; 1% mortality improvement)
 - 18.3 Years

Wealth Effect

ILEC 2002-2004 Study of 35 Companies

2001 VBT A/E Ratio by Amount



Portfolio Construction

What to avoid:

- Single carrier dominated
- All same age or gender
- Having one or a few policies dominate entire portfolio
- Simulation Effect
- Risk of running out of liquidity

Understanding Risks



People tend to think LS's are a lot less risky than they actually are.

Understanding Risks

- **Longevity Risk:** The risk that the policyholder outlives the underwriting life expectancy (LE).
- **Regulatory Protection:** Few laws exist that specifically protect life settlement investors.
- **Credit Risk:** On both the life settlement provider and the life insurance company
- **Liquidity Risk:** The price uncertainty due to the difficulty in reselling the life settlement contract at close to fair value.

Understanding Risks

- **Premium Risk:**
 - High premiums
 - Non-guaranteed premiums
 - COI increase
- **Legal Risk:**
 - Insurable interest
 - Contestability risk
 - Are life settlements securities?
- **Operational Risk:** Can be significant for investors who purchase directly and manage life settlement contracts or fund premium finance loans.
- **Headline and Public Relations Risk**

Understanding Risks

Is it a STOLI?

- The main difference between a legitimate LS and Stranger Originated Life Insurance deal is the original intent. In a LS deal, the party originally bought the policy for a traditional purpose then wanted out.
- A STOLI is a policy that is purchased with the sole intent to sell and is illegal in many states.

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Life Settlements

A Guide for Consumers

Prepared for Joint Meeting of Actuaries Clubs of New England

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11/18/2010

Life Settlements Work Group

- Created by American Academy of Actuaries Life Product Committee
- Public Interest Document
- Neutrality
- Timeframe

What Is a Life Settlement?

- Sale of Policy to Investor
- Simple Idea - Complicated Process

Issues to Consider

- Insurable interest
- Options within the policy
- Complicated Process
- Taxes
- What happens after the sale
- Need for Competent Advisors

Insurable Interest

- Stranger Benefits from Your Death
- Privacy Concerns
 - During Sales Process
 - After Sale

Options within the Policy

- Forgotten since initial insurance purchase?
- Loan, Surrender, Withdrawal
- Accelerated DB
- Discuss with Beneficiary

The Sales Process

- Parties Involved
- Gather Medical & Insurance Info
- Solicit Bids
- Sign 50+ Documents

- Consider Taxes

Personal Information

- Medical Information (APS from *each* MD)
- Financial Information
- Policy Information
- HIPPA rules not enforceable outside US

Regulations

- Part of Viatical Settlement Regs
- Most Deal with Marketing
- Often with Disclosure

After the Sale

- Medical Information still being collected
- Policy may be sold to another Investor

Final Thoughts

- Publication will be soon
- Need to get the word out
- New Work Group – Investors' Guide