What Every (Fill in the Blank*) Needs to Know About Life Insurance and No One Ever Told Them

* Attorney, Accountant, Trust Officer, Financial Planner, Life Insurance Professional

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What Every (Fill in the Blank*) Needs to Know About Life Insurance and No One Ever Told Them

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The Ticking Time Bomb of the Trust-Owned Life Insurance (TOLI) Insolvency Crisis

The Ticking Time Bomb of the TOLI Insolvency Crisis

- The TOLI Center, LLC (TTC), a Fee-Based Policy Administration and Risk Management Services Firm Since 1992 Whose Clientele Includes Skilled and Unskilled Trustees, Attorneys, Affluent Family Groups and ILIT Beneficiaries, Has Maintained Portfolio Statistics (TOLI Specific Statistics Are Unavailable From Traditional Life Insurance Sources)
- According to the TTC Statistics As of December 2017, Approximately 36% of In-Force Universal and Variable Universal Life Products Are Carrier Illustrated to Lapse Prior to the Insured's Estimated Life Expectancy or Within Five Years of the Insured's Estimated Life Expectancy
- Further, According to TTC Approximately 15% of Whole Life and Guaranteed Universal Life Policies Have Compromised Guarantees
- Reliable Data About Life Insurance Polices Owed in ILITs Is Unavailable

The Ticking Time Bomb of the TOLI Insolvency Crisis (Continued)

- Since 1993, TOLI Risk Management Articles Have Suggested That Unskilled, (Brother-In-Law Like Accommodation) Trustees Administer Up to 90% of the In-Force Policies in ILITs
- If The TOLI Center Statistics, Whose Clientele Are Extremely Sophisticated, Mostly Skilled Professionals, Suggest a 40% Insolvency or Lapse Rate with TOLI Policies, What Is That Statistic For the Vast Majority of Unskilled, Accommodation Trustees? 60%? 70%? 90%?

What Every (Fill in the Blank*) Needs to Know About Life Insurance and No One Ever Told Them

*** Attorney, Accountant, Trust Officer, Financial Planner, Life Insurance Professional**

Topics, Issues and Take Homes

- Risks of Life Insurance Policies – Part 1
  - Some Life Insurance Basics
  - Constant Assumption vs. Reality
- Risks of Life Insurance Policies – Part 2
- Life Insurance Has to be Risk Managed
- Process of Managing Life Insurance Policies
- Creditable Evaluation of Life Insurance

Risk of Life Insurance Policies - Part 1

Risk of Life Insurance Policies – Part 1
Risk In Life Insurance

- But Isn't Talking About Risk in Life Insurance Rather Ironic Since Life Insurance is a Risk Transfer Device?
- Risk Shift Started in the Great Divide of 1979
- Prior to 1979 Products Were All Guaranteed Products with the Risk of Sufficiency and Sustainability Retained and Maintained by the Insurance Carrier
- With the Introduction in 1979 of Indeterminate, "Flexible" Premium Non-Guaranteed Products the Risk of Sufficiency and Sustainability was Transferred from the Insurance Carrier to the Policy Owner
- This Risk Shift Has Mostly Either Been Completely Misunderstood or Thoroughly Ignored

Risk of Life Insurance Policies – Part 1
What is Risk and What Are TOLI Expectations?

- Risk is a Variation from Expectations
- What are Expectations with Respect to TOLI?
  - Carrier Remains Solvent and Financially Viable
  - Life Insurance Product Performs According to the Policy Illustration
    - Premium is Sufficient
    - Policy will Sustain Itself
  - Life Insurance Product Remains Suitable
  - For Some, Purchasing Power Remains Constant

Risk of Life Insurance Policies – Part 1
Some Life Insurance Basics

- Life Insurance Pricing and Assumptions
  - Cost of Insurance (COI)
    - Mortality
  - Expenses
    - Administration
    - Start-Up
      - Underwriting
      - Commissions
  - Investment Returns
    - Interest Credited
    - Earnings of Separate Accounts
  - Persistence (Lapse Rate)
  - Lack of Transparency
  - Integrated – View as Whole, Not Separately

Risk of Life Insurance Policies Part 1
Some Life Insurance Basics

- All Life Insurance Is Based on **ASSUMPTIONS**
- In Some Product Types the Methods of Calculating the Results of the Current Assumptions Is Guaranteed, But Not the Results
  - I.E. – **Performance Risk Transferred to Policy Owner**
- In Some Other Product Types the Results of the Assumptions Is Guaranteed
  - I.E. – **Performance Risk Retained by Insurance Carrier**

Risk of Life Insurance Policies – Part 1
Some Life Insurance Basics

- Product Types
  - Fixed Premium "Guaranteed" Products
    - Term
    - Whole Life
    - No Lapse Guarantee Universal Life
  - Indeterminate "Flexible" Premium Products
    - Universal Life
    - Variable Universal Life
    - Indexed Universal Life
  - Blended Part "Guaranteed" Products
    - Base Whole Life with Combination Paid-Up Additions and Decreasing Term Dividend Option and/or Paid-Up Additions Rider

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Risk of Life Insurance Policies – Part 1
Some Life Insurance Basics

- Product Types
  - Fixed Premium "Guaranteed" Products
    - **PERF0RMANCE RISK RETAINED BY CARRIER**
  - Indeterminate "Flexible" Premium Products
    - **PERFORMANCE RISK TRANSFERRED TO POLICYOWNER**
  - Blended Part "Guaranteed" Products
    - **SOME PERFORMANCE RISK RETAINED BY CARRIER (THE "GUARANTEED" PART) AND SOME PERFORMACE RISK TRANSFERRED TO POLICYOWNER**

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Risk of Life Insurance Policies – Part 1

Some Life Insurance Basics

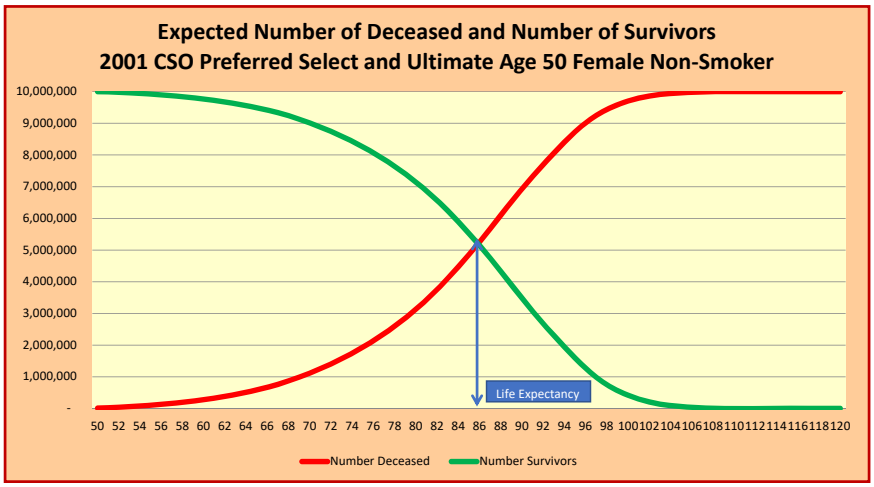
Mortality Tables

- Actuaries Construct Mortality Tables Based on the Ages of Death of Various Members of Population Groups
- Tables May be for Aggregate Groups, or Groups With Specific Characteristics and Criteria
- From Either the Aggregate Population or Specific Characteristic Groups Chosen, the Probability of Death at Any Age is Derived
- Probability of Death Increases with Age, Although There Have Been "Blips' at Young Ages and Some Smoothing is Involved
- Every Mortality Table Constructed Has a Maximum Age in Which Death is Assumed to be Certain (100% Probability)
  - For Official Tables Constructed Prior to 2001 the Maximum Age was 100
  - For Official Tables Constructed in 2001 and 2017 the Maximum Age is 120
  - Will the Next Generation of Mortality Tables Have a Maximum Age of 150?

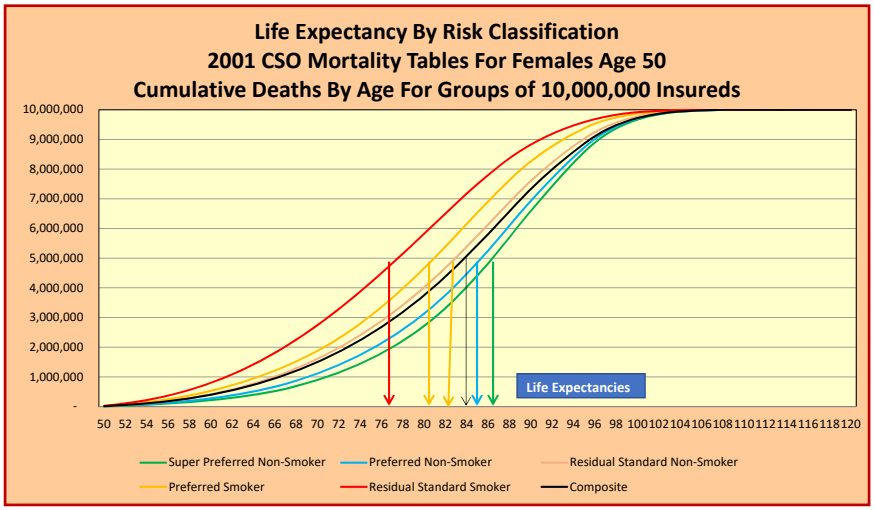
Risk of Life Insurance Policies – Part 1

Some Life Insurance Basics

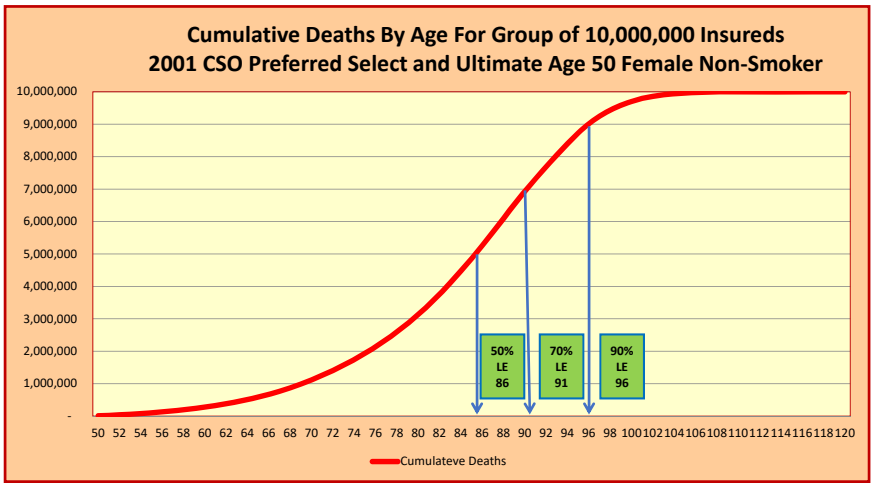
Mortality Tables and Life Expectancy



Risk of Life Insurance Policies – Part 1
Some Life Insurance Basics



Risk of Life Insurance Policies – Part 1
Some Life Insurance Basics
Life Expectancy - Percentile



Risk of Life Insurance Policies – Part 1

Some Life Insurance Basics

Life Expectancy

- Life Expectancy Is Always Measured From A Starting Age and Is Dependent on That Starting Age
  - Generally Life Expectancy Increases With Starting Age
- Life Expectancy Is Generally Measured With Respect to Specific Groups With Common Characteristics or Risks
  - I.E., Preferred Risk Females Age 50 Nonsmokers, Standard Risk Males Age 25 Smokers
- Life Expectancy Can Also Be Measured With Respect to Large Aggregate Groups
  - I.E., All Males Age 45
- Life Expectancy Represents the Medium Age or Mid-Point Where Half of A Group Are Deceased and Half Have Survived; It, Therefore, Represents the 50% Percentile Mark
- There Also May Be A Shift In Life Expectancy Due to Changes in Health, Occupation and/or Avocation

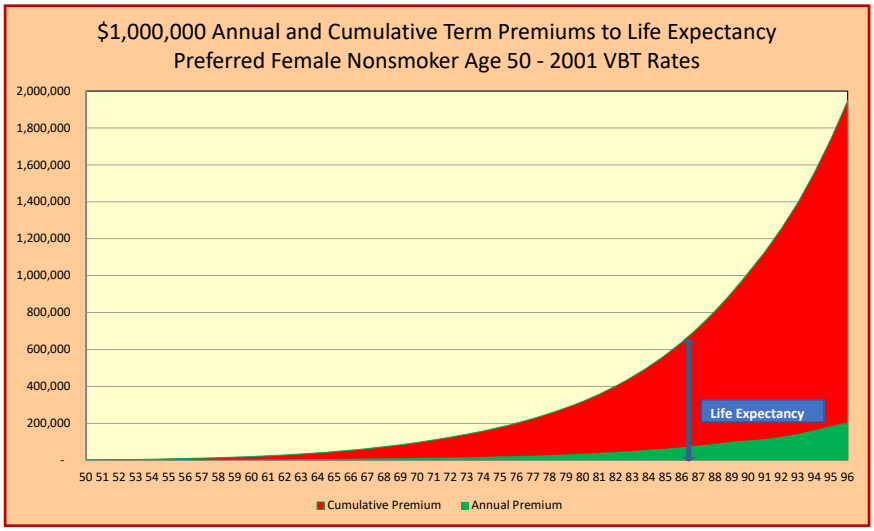
Risk of Life Insurance Policies – Part 1

Some Life Insurance Basics

Mathematics of the Cost of "Pure" Term Insurance

- Term Insurance is Best for "Temporary" Needs for Life Insurance
- What Constitutes a "Temporary" Need Time Period is Debatable
  - Clearly 10 Years Or Less
  - Possibility As Many As 30 Years
  - But Clearly Less Than Life Expectancy
- Essentially the Annual Cost of Term Insurance Is Based On the Probability of Death for Each Year
  - It Is "Pay As You Go" Life Insurance
  - Obviously Cost Increases Each Year and Over Time Escalates Exponentially
  - Reasonable Cost at "Younger" Ages, Unaffordable Cost at "Older" Ages
  - Cost, However, May Be Levelized Over 5, 10, 15, 20 or 30Years, Or, To Age 55,60,65, 70 or 75

Risk of Life Insurance Policies – Part 1
Some Life Insurance Basics
Mathematics of the Cost of "Pure" Term Insurance



Risk of Life Insurance Policies – Part 1
Some Life Insurance Basics
Mathematics of the Cost of "Pure" Term Insurance (Continued)

- Total Cumulative Annual Term Premium Costs For $1,000,000 of Coverage For A 50 Year Old Female Preferred Non-Smoker Using Rates Based On the 2001 Valuation Basic Table (VBT) Non Interest Adjusted
  - To Life Expectancy of 86 Years is $640,900
  - To Life Expectancy Plus 10 Years, Or Age 96 is $1,948,420
  - To Age 100 is $2,879,620
  - Beyond Age 100 – You Don't Want to Hear It
- For Life Insurance Needs Close To Life Expectancy and Beyond Clearly Term Insurance Is Not the Answer and Does Not Work

Risk of Life Insurance Policies – Part 1

Some Life Insurance Basics

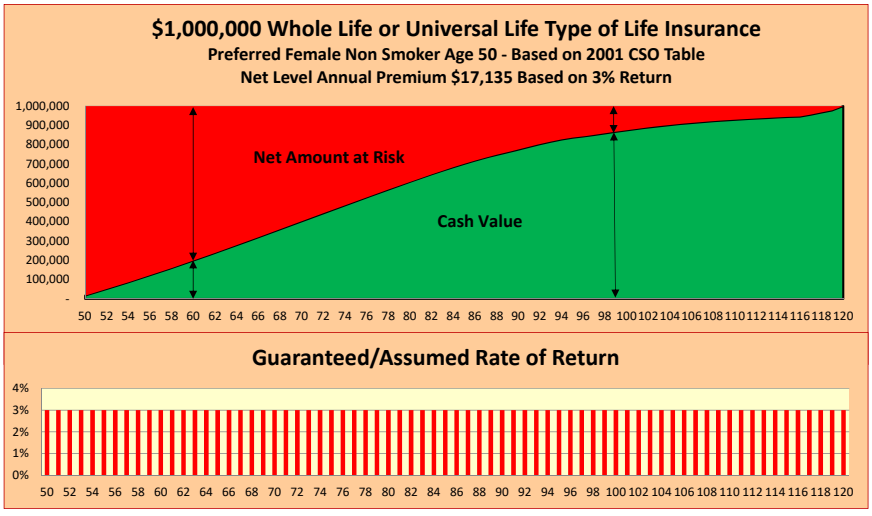
Mathematics of "Permanent" Types of Insurance

- Recognizing the Problems With Term Insurance, Actuaries Came Up With "Permanent" Insurance For Long-term Needs
- Goal Was to Make Permanent Insurance Affordable For the Insured's "Whole" Life By Levelizing Annual Premium Cost
- Simplified Explanation of Levelizing Computation Process:
  - Compute Net Present Value of All Annual Mortality (Term) Costs to Maximum Age of Mortality Table To Create A "Net Single Premium"
  - Take Net Single Premium and Amortized - Level It Out - Over Premium Paying Period, Which Is Generally to End of Mortality Table, To Create Net Level Annual Premium
  - Add Policy Expenses Levelized By The Same Above Process To Create Gross Level Annual Premium
  - All of Above Done With A Constant Assumed Rate Of Interest

Risk of Life Insurance Policies – Part 1

Some Life Insurance Basics

Mathematics of "Permanent" Types of Insurance



Risk of Life Insurance Policies – Part 1

Some Life Insurance Basics

Mathematics of "Permanent" Types of Insurance (Continued)

- With Level Premium Concept In Early Years The Premium Is Greater Than the Actual Cost of Insurance Protection and In Later Years the Cost of Insurance Is Greater Than the Premium
- The Excess Premium Is Put Into a Reserve Which Creates the Cash Value of the Policy
- In Fact, Anytime Premium is Levelized A Reserve, Or Cash Value, Is Created
- Cash Value Becomes Part of Death Benefit
- Over Time Cash Value Grows To Equal the Total Death Benefit Amount At The Maximum Age of the Mortality Table Used for the Policy

Risk of Life Insurance Policies – Part 1

Some Life Insurance Basics

Mathematics of "Permanent" Types of Insurance (Continued)

- At the Same Time, Over Time, the "Pure Insurance Protection" Over and Above the Cash Value, Called "Net Amount At Risk" Decreases
- It Is this Relationship that Makes Permanent Life Insurance Affordable
- Thus, At Any Particular Point In Time The Total Death Benefit Is Equal to the Sum of The Cash Value Plus The Net Amount at Risk
- This Relationship, Like All Insurance, Is Based On Assumptions and Is A Very Delegate Balance

Risk of Life Insurance Policies – Part 1

Some Life Insurance Basics

Mathematics of "Permanent" Types of Insurance (Continued)

- If the Life Insurance Product Is a Guaranteed Product, Or All the Assumptions – The Policy Earnings, Cost of Insurance, Policy Expenses and Premiums – In a Non-Guaranteed Product Remain Constant, Than the Previous Graph Is an Accurate Representation of the Life Insurance Policy
- Note That the Graph Represents a Picture of a Constant Assumption Policy Illustration
- However, What If in Non-Guaranteed Products the Assumptions Are Not Constant, But Volatile – Particularly Policy Earnings?

Risk of Life Insurance Policies – Part 1

Constant Assumption vs. Reality

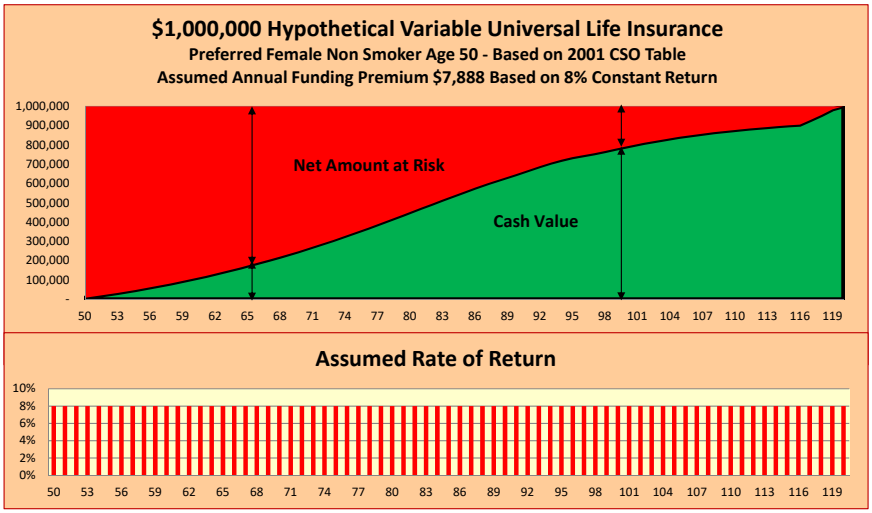
Mathematics of "Permanent" Types of Insurance (Continued)

- Following Graph Represents a $1,000,000 Hypothetical Variable Universal Life Policy for a Preferred Female Non-Smoker Age 50 With the Planned Assumed Funding Premium of $7,888, Based on the 2001 CSO Mortality Table with Select and Ultimate Rates, No Expense Loading, and an Assumed Constant Rate of Return of 8%
- Note Comparison of Premiums Derived at 8% and the Premium Derived of $17,135 for Whole Life or Universal Life Using Same Assumptions As in Previous Graphs But with Assumed Constant Rate of Return of 3%

Risk of Life Insurance Policies – Part 1

Constant Assumption vs. Reality

Mathematics of "Permanent" Types of Insurance



Risk of Life Insurance Policies – Part 1

Constant Assumption vs. Reality

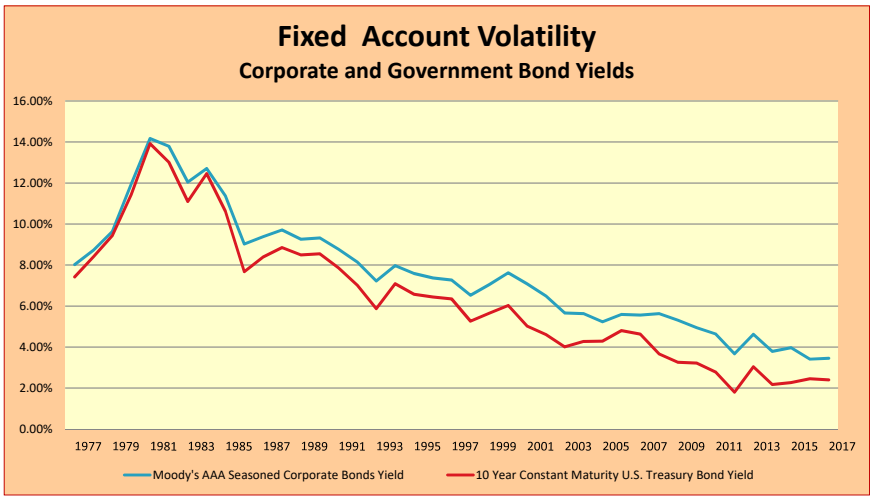
Mathematics of "Permanent" Types of Insurance (Continued)

- But for Variable Universal Life Policies (And Other Non-Guaranteed Products) Returns Are Not Constant Every Year But Changing and Volatile
- Thus, the Constant Average Return Life Insurance Policy Illustration Does Not Reflect Reality
- Keeping All Other Assumptions Constant But the Assumed Rate of Return, Let's Look at the Effect of Volatile Rates of Return

Risk of Life Insurance Policies – Part 1

Constant Assumption vs. Reality

Mathematics of "Permanent" Types of Insurance (Continued)



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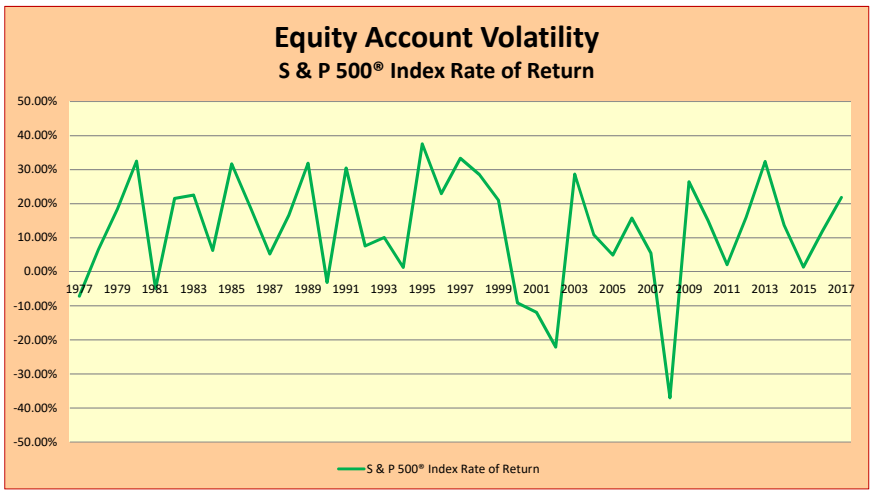
Risk of Life Insurance Policies – Part 1

Constant Assumption vs. Reality

Mathematics of "Permanent" Types of Insurance (Continued)



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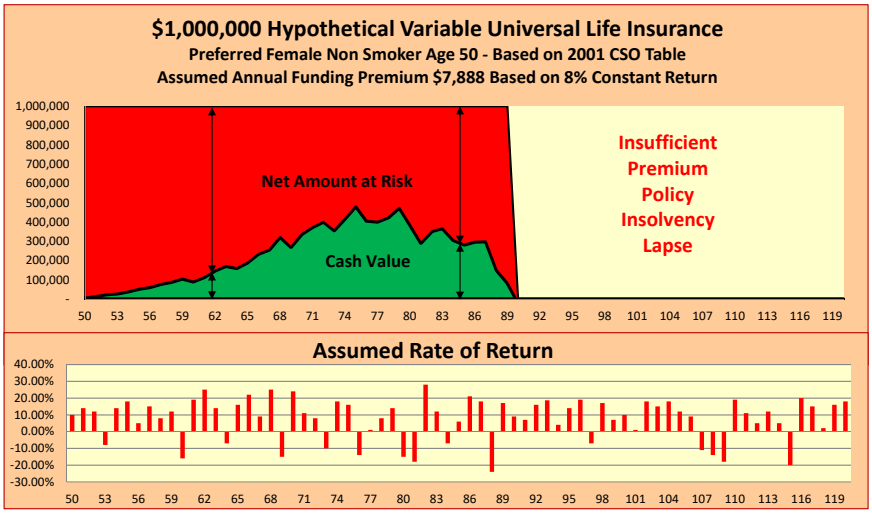
Risk of Life Insurance Policies – Part 1
Constant Assumption vs. Reality
Mathematics of "Permanent" Types of Insurance (Continued)



Risk of Life Insurance Policies – Part 1
Constant Assumption vs. Reality
Mathematics of "Permanent" Types of Insurance (Continued)

- The Preceding Graph Has an Overall Average Rate of Return of Just Short of 9%, And an Average Rate of Return of 8%-9% For Each 10 Year Period
- However, Note that the Assumed Funding Premium of $7,888, Based On a Constant Rate of Return of 8%, Is Inadequate To Sustain the Policy Pass Age 90 Given This Pattern of Assumed Rates of Return, The Insufficient Premium Causes Policy Insolvency and Lapse

Risk of Life Insurance Policies – Part 1

Constant Assumption vs. Reality

Mathematics of "Permanent" Types of Insurance (Continued)

- What Causes This Policy Insolvency and Lapse?
- The Answer Is In the Very Delicate Relationship Between the Net Amount at Risk and Cash Value
- When Planned Assumed Funding Premiums Are Calculated With an Assumed Constant Rate of Return To Endow at Contract Maturity, Generally At or Near the End of the Mortality Table, As Long As Actual Rates of Return Remain At or Above the Assumed Rate of Return, Assuming No Change in Premiums, Cost of Insurance, Or Expenses, the Policy Will Endow or Mature

Risk of Life Insurance Policies – Part 1

Constant Assumption vs. Reality

Mathematics of "Permanent" Types of Insurance (Continued)

- However, If the Rate of Return Falls Below the Assumed Constant Rate of Return the Very Delicate Balance Between the Net Amount at Risk and Cash Value Is In Danger, and the Whole Thing Can Go Eschew Causing the Policy to Become Insolvent, Or Lapse, Unless Sufficient Additional Premiums Are Added
- Lower Rates of Return Than the Assumed Constant Rate of Return Causes a Decrease In Cash Value And an Increase In Net Amount at Risk

Risk of Life Insurance Policies – Part 1
Constant Assumption vs. Reality
Mathematics of "Permanent" Types of Insurance (Continued)

- This Results In an Increase In Cost of Insurance (COI) Because COI Is Determined By the Net Amount at Risk Multiplied By Mortality Rates For the Insured's Attained Age In Any Particular Policy Year (Note Mortality Rates Increase Constantly Each Year and Exponentially At Older Ages)
- Cost of Insurance Is Deducted From the Cash Value, Now At an Increased Amount, Further Reducing the Cash Value

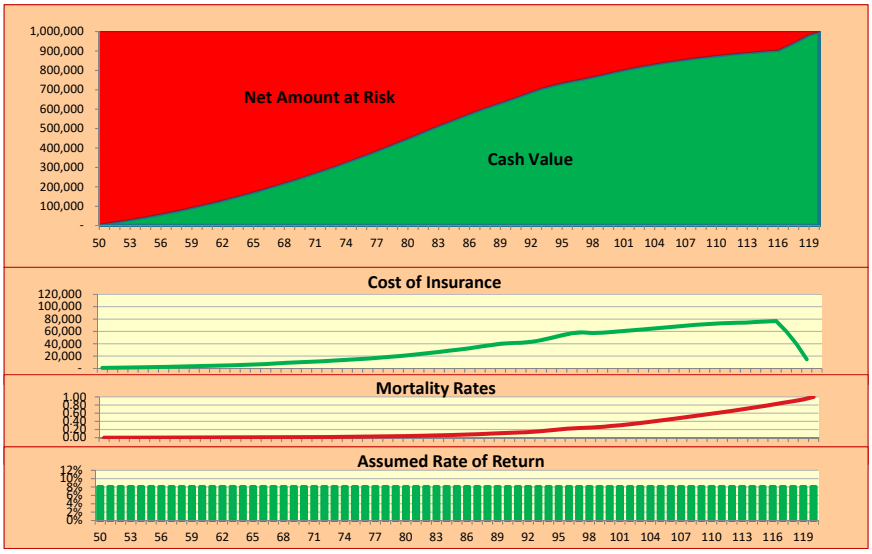
Risk of Life Insurance Policies – Part 1
Constant Assumption vs. Reality
Mathematics of "Permanent" Types of Insurance (Continued)

- With Volatile Rates of Return, And No Increase In The Funding Premium, The Result Can Be a "Death Spiral" Causing the Policy To Become Insolvent and Lapse
- The Policy Can Die Long Before the Insured
- The Following Three Graphs Illustrate the Interaction Between Rates of Return, Net Amount at Risk, Cost of Insurance and Mortality Rates

Risk of Life Insurance Policies – Part 1

Effect of Rate of Return on Net Amount at Risk and Cost of Insurance

Variable Universal Life Policy - Constant 8% Rate of Return



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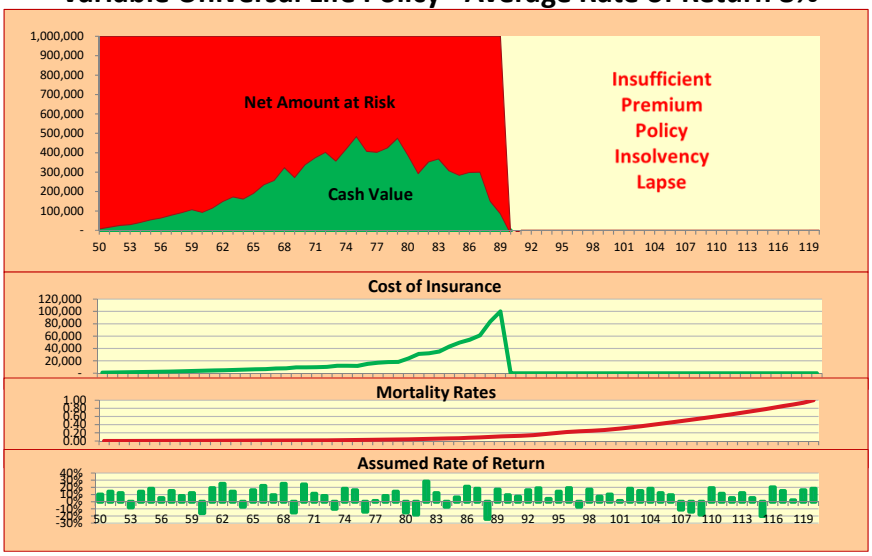
Risk of Life Insurance Policies – Part 1

Effect of Rate of Return on Net Amount at Risk and Cost of Insurance

Variable Universal Life Policy - Average Rate of Return 8%



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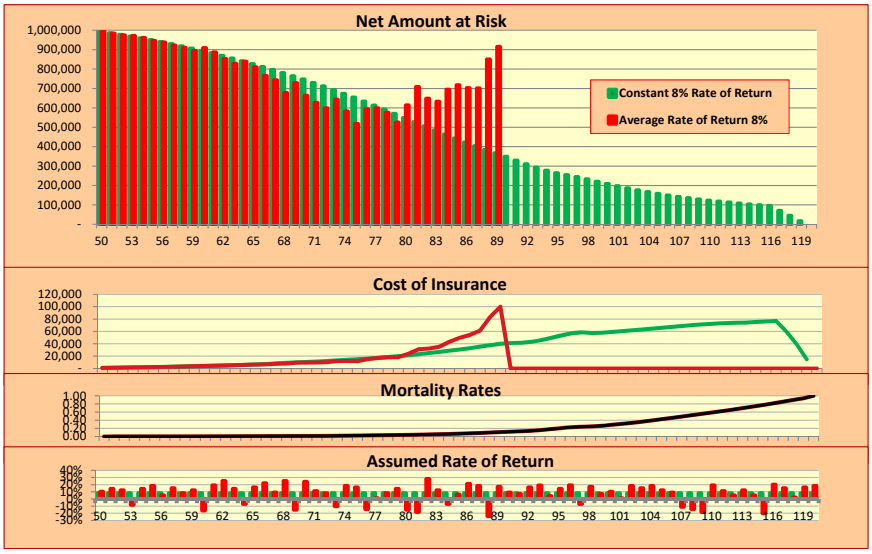
Risk of Life Insurance Policies – Part 1

Effect of Rate of Return on Net Amount at Risk and Cost of Insurance

Variable Universal Life Policy – Constant vs. Average Rate of Return of 8%



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Risk of Life Insurance Policies – Part 1

Effect of Earnings on Net Amount at Risk and Cost of Insurance

Mathematics of "Permanent" Types of Insurance (Continued)

- With the First Graph, Assuming Constant Earnings of 8%, The Policy Matures At Age 120
- Note With Constant 8% Earnings, While Mortality Rates Increase Over the Period Shown, the Net Amount at Risk Deceases
- The Second Graph Illustrates An Average Earnings of Just Short of 9% But With Volatility for Each Year The Policy Is Insolvent and Lapses At Age 90
- While Mortality Rates are the Same as in The First Graph, Note the Cumulative Effect of Volatility in Rates of Return on the Net Amount at Risk and Cost of Insurance

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Risk of Life Insurance Policies – Part 1

Effect of Earnings on Net Amount at Risk and Cost of Insurance Mathematics of "Permanent" Types of Insurance (Continued)

- The Third Graft is a Composite of the Two Proceeding Graphs Dramatically Illustrating the Effect of Constant Rates of Turn vs. Average Rates of Return
- Cost of Insurance Is Equal to the Net Amount at Risk Multiplied By the Mortality Rate for Each Year
- Note That While Mortality Rates Remain the Same In Both Graphs, The Application of Those Rates to the Increased Net Amount At Risk In the Second Graph Causes a Substantial Increase In the Cost of Insurance Which Eats Up the Cash Value Causing the Policy to Lapse
- Later In This Presentation We Will Examine How To Address The Volatility Issue And Properly Evaluate Non-Guaranteed Flexible Premium Life Insurance Products, And Derive A Premium That, While Certainly Not Guaranteed, Can Accurately Reflect The Effect of Volatility In Rates of Return, With Statistical Probabilities of Confidence

Risk of Life Insurance Policies - Part 2

Risk of Life Insurance Policies – Part 2
Carrier Insolvency

- Rating Services
  - A. M. Best
  - Fitch
  - Moody's
  - Standard & Poor's
- Comdex
  - Recommend at least 85, Preferably 90 or Better
- State Guarantee Funds
  - Limited to $300,000 to $500,000 Face Amount Depending Upon State

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Risk of Life Insurance Policies – Part 2
Risk by Product Types

- Risks Vary by Product Types
  - Affected by What's Guaranteed and Not Guaranteed
  - Affected by Non-Guaranteed Policy Performance
    - Earnings or Interest Crediting Rates
    - Cost of Insurance
    - Expenses
    - Lapses
  - Affected by Policy Funding Adequacy
    - Universal Life
    - Variable Universal Life
    - Indexed Universal Life
  - Affected by Dividend Performance on Blended Base Whole Life with Combination of Paid-Up Additions and Decreasing Term Dividend Option and/or Paid-Up Additions Rider
  - What About Purchasing Power Risk?
    - Depends On Policy Type and Funding Adequacy

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Risk of Life Insurance Policies – Part 2

Purchasing Power Risk

Effect of 2.5% Inflation on $1,000,000 Life Insurance Policy

Issue Age Female	Life Expectancy @ Issue Age	Value of $1,000,000 @ Life Expectancy	Needed Now for $1M Purchasing Power @ L.E.
45	90	$329,174	$3,037,903
55	91	$411,094	$2,432,535
65	91	$526,235	$1,900,293
75	92	$657,195	$1,521,618

Risk of Life Insurance Policies – Part 2

Purchasing Power Risk

Effect of 2.5% Inflation on $1,000,000 Life Insurance Policy

Issue Age Male	Life Expectancy @ Issue Age	Value of $1,000,000 @ Life Expectancy	Needed Now for $1M Purchasing Power @ L.E.
45	88	$345,839	$3,037,903
55	88	$442,703	$2,258,851
65	89	$552,875	$1,808,726
75	91	$673,625	$1,484,506

Risk of Life Insurance Policies – Part 2

Purchasing Power Risk

Effect of 2.5% Inflation on $1,000,000 Life Insurance Policy

Issue Age Joint Female/Male	Life Expectancy @ Issue Age	Value of $1,000,000 @ Life Expectancy	Needed Now for $1M Purchasing Power @ L.E.
45/45	95	$290,942	$3,437,109
55/55	95	$372,431	$2,685,064
65/65	95	$476,743	$2,097,568
75/75	96	$595,386	$1,679,582

Risk of Life Insurance Policies – Part 2

Risks by Product Types – Term Insurance

What's Guaranteed	What's Not Guaranteed - Risks
• Premium for a Period • Death Benefit • Renewability for a Period • Conversion for a Period	• Current Rates at End of Term Period • Insurability at End of Maximum Term of Term Insurance • Purchasing Power of Death Benefit

Risk of Life Insurance Policies – Part 2
Risks by Product Types – Par Whole Life

What's Guaranteed	What's Not Guaranteed - Risks
• Premium • Premium Paying Period • Cash Values (Minimum Guarantee) • Death Benefit • Policy Sustainability • Premium Sufficiency	• Dividends • Purchasing Power Depending on Dividend Amount and Option, Some Purchasing Power Protection can be afforded with Paid-Up Additional Insurance Dividend Option

Risk of Life Insurance Policies – Part 2
Risks by Product Types – Universal Life

What's Guaranteed	What's Not Guaranteed - Risks
• First Year Death Benefit and Minimum Required Amount of Premium • Minimum Interest Crediting Rate • Maximum Cost of Insurance • Maximum Policy Expenses	• Premium Sufficiency • Policy Sustainability • Current Interest Crediting Rates • Current Costs of Insurance • Current Policy Expenses • Purchasing Power – Depends on Factors Such As Level or Increasing Death Benefit Option, Policy Performance, Funding Adequacy and Section 7702 Corridor

Risk of Life Insurance Policies – Part 2
Risks by Product Types – Variable Universal Life

What's Guaranteed	What's Not Guaranteed - Risks
• First Year Death Benefit and Minimum Required Amount of Premium • Maximum Cost of Insurance • Maximum Policy Expenses	• Premium Sufficiency • Policy Sustainability • Earnings • Current Costs of Insurance • Current Policy Expenses • Purchasing Power – Depends on Factors Such As Level or Increasing Death Benefit Option, Policy Performance, Funding Adequacy and Section 7702 Corridor

Risk of Life Insurance Policies – Part 2
Risks by Product Types – No-Lapse Guarantee Universal Life

What's Guaranteed	What's Not Guaranteed - Risks
• Premium amount if Paid Timely and Other Conditions • Death Benefit Subject to Premium Conditions Above • Policy Sustainability Subject to Premium Conditions Above • Premium Sufficiency Subject to Premium Conditions Above	• Policy Owner Fails to Comply with the Conditions of the Guarantee, Especially Not Making Premium Payments on Time • Carrier Solvency • State Guarantee Fund Coverage – A.G. 38 • Purchasing Power

Risk of Life Insurance Policies – Part 2
Risks by Product Types – Indexed Universal Life

What's Guaranteed	What's Not Guaranteed - Risks
• First Year Death Benefit and Minimum Required Amount of Premium • Crediting Rate Formula – Based on Some Index Such as S&P 500® **Without** Dividend Component, with non-guaranteed Participation Rate and Caps; and Minimum Interest Crediting Rate (Typically 100 Basis Points or More Below UL Min. Rate but can be Zero) • Maximum Cost of Insurance • Maximum Policy Expenses	• Premium Sufficiency • Policy Sustainability • Adequacy of Earnings • Participation Rate • Maximum Caps on Increase in Index • Current Costs of Insurance • Current Policy Expenses • Purchasing Power – Depends on Factors Such As Level or Increasing Death Benefit Option, Policy Performance, Funding Adequacy and Section 7702 Corridor

Risk of Life Insurance Policies – Part 2

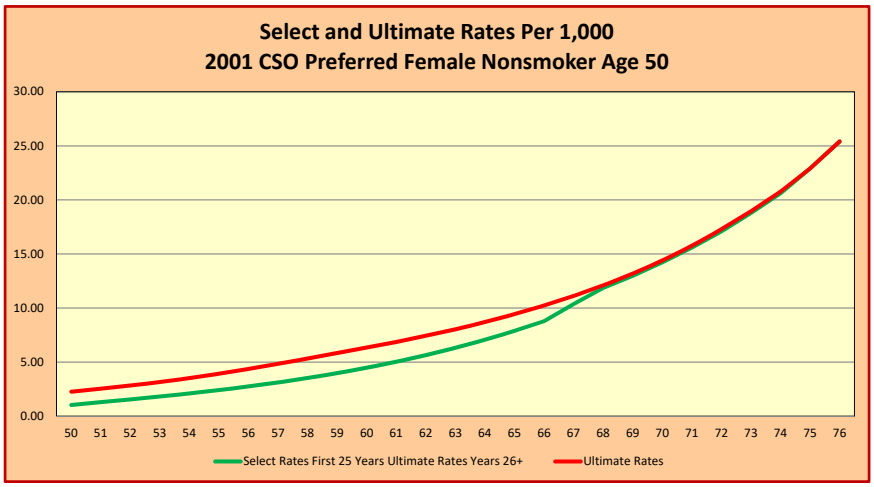
Risks by Product Types – Blended Base Whole Life with Combination Paid-Up Additions and Decreasing Term Dividend Option and/or Paid-Up Additions Rider

What's Guaranteed	What's Not Guaranteed - Risks
• Base Whole Life Premium • Base Whole Life Premium Paying Period • Base Whole Life Cash Values (Minimum Guarantee) • Base Whole Life Death Benefit • Base Whole Life Policy Sustainability • Base Whole Life Premium Sufficiency • Paid-Up Additions Rider – The Right to Purchase on a Continuous Ongoing Basis at a Fixed Dollar Premium Amount, Single Premium Paid-Up Whole Life Insurance at the Insured's Attained Age for Each Policy Year • Paid-Up Additions Rider Face Amount Purchased at Each Year's Attained Age • Paid-Up Additions Rider Cash Values (Minimum Guarantee) • Paid-Up Additions Rider Death Benefit, Policy Sustainability and Sufficiency	• Dividends for Both Base Policy and Paid-Up Additions Rider • Inadequate Dividends Failure to Cover Term Cost Requiring Term Premium Contributions, Which Probably Could Increase in Subsequent Years • Purchasing Power Depends on Dividend Amount , Some Purchasing Power Protection Can be Afforded with the Paid-Up Additional Insurance Dividend Option After Paid-Up Additional Insurance Face Amount Additions Are Equal to the Initial Decreasing Term Face Amount

Risk of Life Insurance Policies – Part 2
Product Suitability

- Need for Life Insurance
  - Increase
  - Decrease
  - No Longer Needed
    - Consider Life Settlement
- Product Type Appropriateness
  - Risk Tolerance
  - Lowest Premiums vs. Growth in Death Benefit and Cash Values
- Premium Paying Capacity
- Policy Replacement
  - Insurability or Change in Insurability
  - Select and Ultimate Mortality Costs vs. New Acquisition Costs Such as Commissions
  - Society of Financial Service Professionals Replacement Questionnaire
  - Life Settlements

Risk of Life Insurance Policies – Part 2
Select and Ultimate Rate Comparison



Risk of Life Insurance Policies – Part 2 Diversification

- Life Insurance is a Concentrated Asset
- Life Insurance Diversification
  - By Multiple Policy Carriers, and
  - Multiple Policy Types Based on "Asset Allocation" by
    - Risk Tolerance
    - Preference for Lowest Premiums vs. Growth in Death Benefit and Cash Values
  - Trade Off Between Benefits of Diversification vs. Lower Cost Based on Premium Banding and Multiple Policy Fees
  - Depends on Total Face Amount of Life Insurance

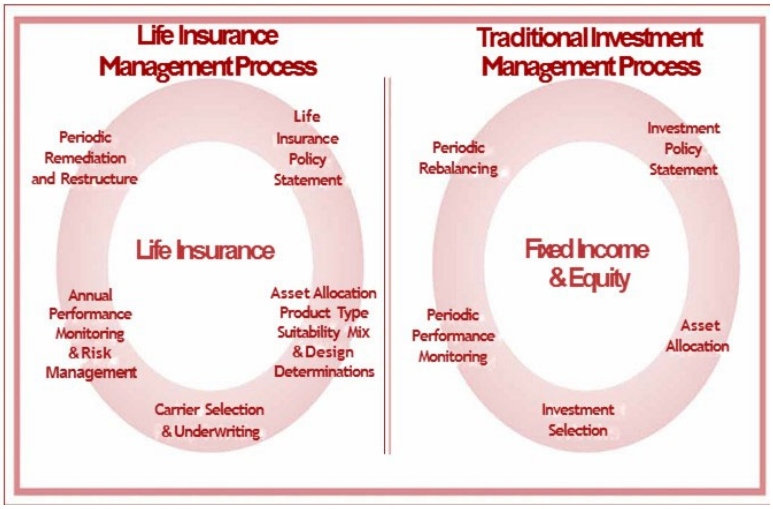
Life Insurance Has to be Risk Managed

Life Insurance Has to be Risk Managed
But Who Does the Managing for TOLI Policies?

- The Trustee?
  - Professional Trustee
  - Amateur Trustee, i.e. The Brother-in-Law Trustee
- The Grantor?
- The Life Insurance Professional?
- The Beneficiaries?
- What About Delegation and to Whom?

Process of Managing Life Insurance Policies

Process of Managing Life Insurance Policies
Life Insurance and Traditional Investment Management Process



Process of Managing Life Insurance Policies
TOLI Investment Policy Statement (TIPS)

- Formalizes the Trust's Objectives and Grantor's Expectations
- Identifies the ILIT Parties and Sets Out the Duties of Each Party
- Specifies Risk Tolerance Pursuant to Trust Objectives
- Provides for the Delegation of Life Insurance Expertise and Policy Evaluation Duties
- Summarizes the Risk Management Criteria to be Annually Evaluated and the Procedure to Monitor and/or Restructure Under-Performing or Unsuitable Policies
- Confirms the Annual Beneficiary Reporting, Accounting and Communication Schedule Functions

Process of Managing Life Insurance Policies

TOLI Administration and Risk Management Duties May Be Delegated

- If ILIT Trustee Lacks Life Insurance Expertise and Policy Evaluation Ability, and/or Administration Capacity These Functions May and Should Be Delegated to Independent Qualified Parties
- Delegation Must Follow a Prudent Process Which Should Include Requests for Proposals (RFP) and the Procedures and Process Should Be Written in the TOLI Investment Policy Statement (TIPS)

Spectrum of TOLI Delegation	
❖Investment Policy Statement Review	❖ILIT Client Administration
❖Carrier/Product Suitability Analysis	❖Policy Performance Evaluation
❖Fact-Based Policy Risk Assessment	❖Portfolio Risk Management Reporting
❖Life Expectancy and Duration Analysis	❖Policy Performance Management Reports
❖Policy Underwriting Oversight	❖Actuarial-Certified Policy Evaluation
❖Policy Acceptance Oversight	○ Premium Adequacy
❖Portfolio "Watch List" Procedures	○ Lapse Evaluation
❖Policy Remediation Consulting	○ Policy Cost Evaluation
❖Policy "Rescue" Option Analysis	❖Monte Carlo Simulation Analysis
❖Requests for Proposal Oversight	❖Remediation Option Evaluation
❖Professional Adviser Communications	❖Grantor/Beneficiary Communications

Process of Managing Life Insurance Policies

Best vs. Predatory Practices For Professional and Amateur Trustees

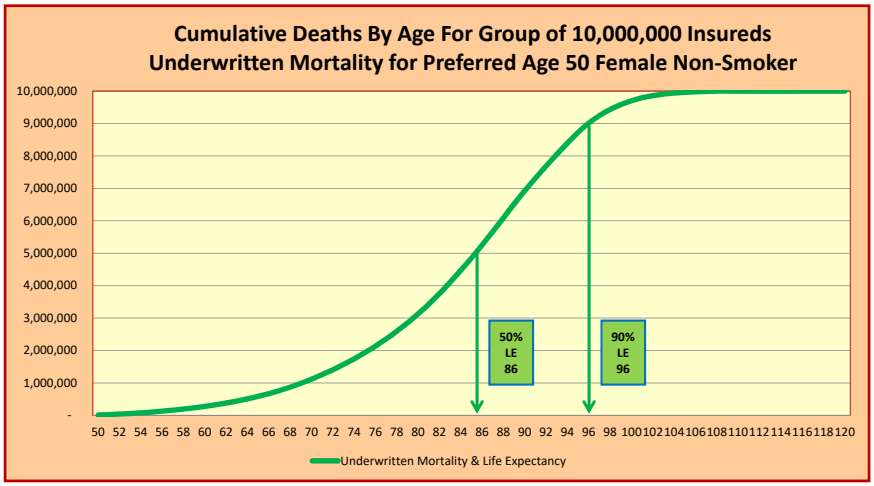
- Process the Same for Both Amateur and Professional Trustees.
- Amateurs Can Use Best Practices of Professional Trustees.
- Best Practices - Policy acceptance, management, and restructure decisions based upon the ILIT Agreement, TOLI Investment Policy Statement and TOLI-specific expertise.
- Predatory Practices - The conscious and willful inattention to, avoidance of and disregard for the ILIT Agreement, known ILIT trustee duties and known life insurance guidance. (Ignorance and lack of awareness are not defensible excuses.)

Spectrum of TOLI Risk Management Options			
	Predatory	Questionable	Best
Trustee	No Duties	Limited Duties	Active Oversight
IPS	No	No	Yes
Life Insurance Expertise	Unknown	Grantor Friend	Delegation per IPS
Policy Monitoring	No	Illustrations	Dispute Defensible per IPS
Annual Communication	No	Periodic	Yes per IPS
Restructure Evaluation	Unknown	Unknown	Yes per IPS

Process of Managing Life Insurance Policies

Duration Analysis Planning

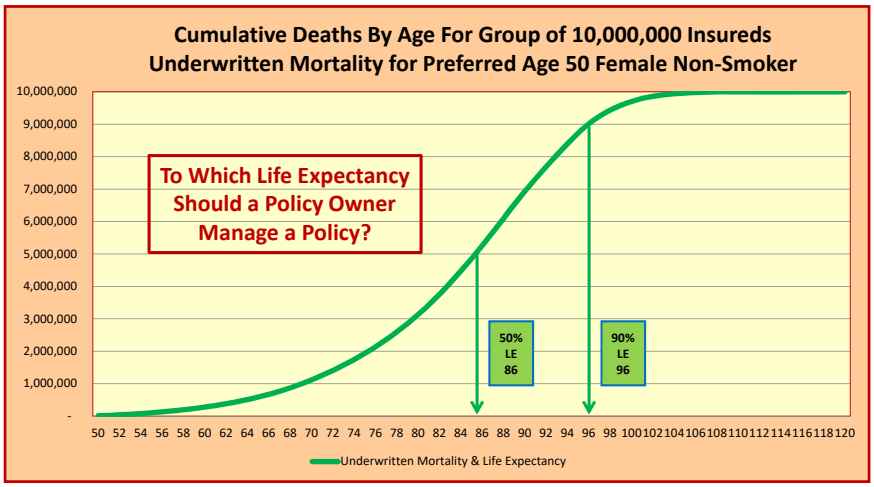
Underwritten Mortality & Life Expectancy Percentiles



Process of Managing Life Insurance Policies

Duration Analysis Planning

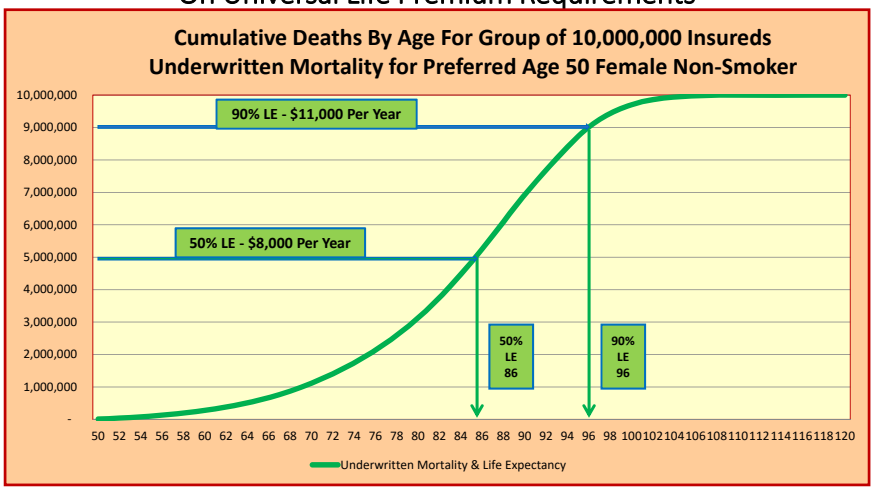
The $64,000 Question About Life Expectancy



Process of Managing Life Insurance Policies

Duration Analysis Planning

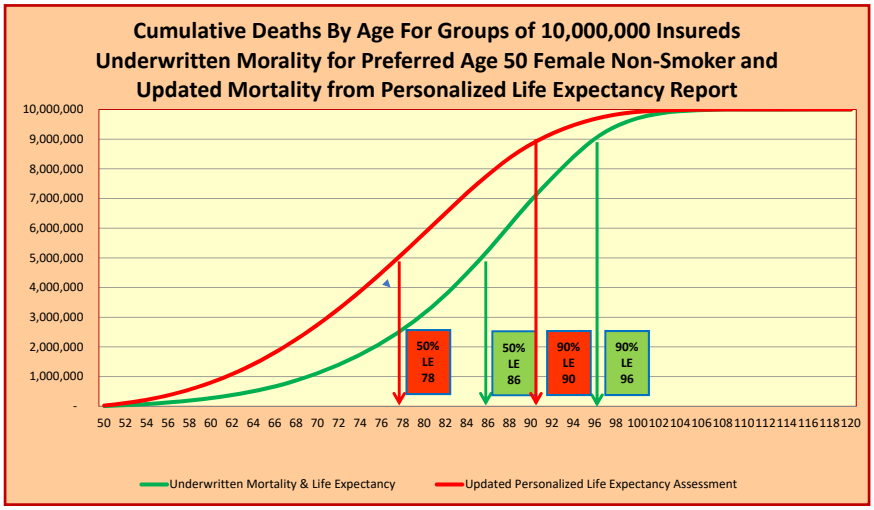
Effect of Life Expectancy Objective On Universal Life Premium Requirements



Process of Managing Life Insurance Policies

Duration Analysis Planning

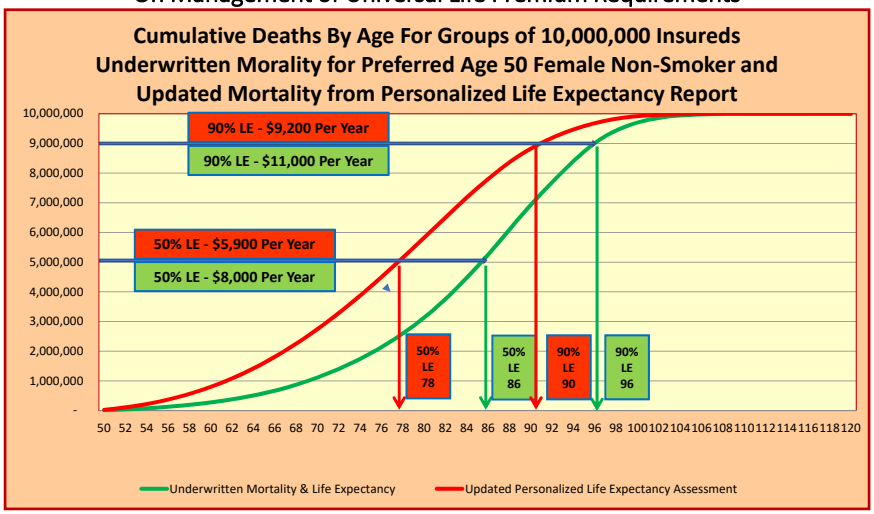
Shifting Mortality and Life Expectancy From Updated Personalized Life Expectancy Report



Process of Managing Life Insurance Policies

Duration Analysis Planning

Effect of Updated Personalized Life Expectancy Report
On Management of Universal Life Premium Requirements



Creditable Evaluation of Life Insurance

Creditable Evaluation of Life Insurance

- Policy Illustration Comparisons: 1992 Society of Actuaries Task Force on Policy Illustrations Report
  - "…[when] illustrations are used to show the client how the policy works; [it is] a valid purpose of policy illustrations. Illustrations which are typically used, however, to portray the *numbers* based on certain fixed assumptions – and/or are likely to be used to compare one policy to another – are an improper use of a policy illustration."
  - "…How credible are any non-guaranteed numbers projected twenty years in the future, even if constructed with integrity? How does the consumer evaluate the credibility of two illustrations if they are from different companies? Or even if they are from the same company if different products with different guarantees are being considered? *Most illustration problems arise because the illustrations create the illusion that the insurance company knows what will happen in the future and that this knowledge has been used to create the illustration." (Emphasis added.)*

Creditable Evaluation of Life Insurance

- **FINRA Rule 2210 - IM-2210-2. Communications with the Public About Variable Life Insurance:**
  - IM 2210-2 (b)(5)(A)(i) "Hypothetical illustrations using assumed rates of return may be used to demonstrate the way a variable life insurance policy operates. The illustrations show how the performance of the underlying investment accounts could affect the policy cash value and death benefit. **These illustrations <u>may not</u> be used to project or predict investment results as such forecasts are strictly prohibited by the Rules**. …."
  - IM 2210-2 (b)(5)(C)"… it is inappropriate to compare a variable life insurance policy with another product based on hypothetical performance as this type of presentation goes beyond the singular purpose of illustrating how the performance of the underlying investment accounts could affect the policy cash value and death benefit….."

Creditable Evaluation of Life Insurance

- Would a loan officer accept an unaudited financial statement from the bookkeeper of a company being considered as a loan candidate? Would the loan officers not want a financial statement audited and certified by a CPA? Than why would a trust officer not want an evaluation of a life insurance policy that is not certified by an actuary using actuarially-based principles?

Creditable Evaluation of Life Insurance

What is Not an Acceptable Evaluation Method?

- Using Policy Illustrations to Project and/or Predict Non-Guaranteed Policy Vales
- Using Policy Illustrations to Compare One Policy to Another (Even of the Same Type of Policy)
- Policy Audit Reports (They are all Based on Comparing Policy Illustrations)
- Premium Optimization Reports (Again, Based on Comparing Policy Illustrations
- Any System that Uses Non-Guaranteed Constant Earnings or Interest Crediting Rates to Predict Values or Compare Policies
- All of the Above are not “Dispute Defensible”

Creditable Evaluation of Life Insurance

What is Required for Acceptable Evaluation of Non-Guaranteed Life Insurance Products?

- Evaluation Must Be Unbiased, Credible, Impartial and Fact-Based
- Uses Objective Data
- Uses Actuarial Evaluation Using Generally Accepted Actuarial Methods (Note Parallel to Generally Accepted Accounting Principles)
- Use of Quantitative, Measurable Benchmark Comparisons and Policy Standards
- Is This Possible With Non-Guaranteed Life Insurance?

Creditable Evaluation of Life Insurance

What is Acceptable Evaluation of Non-Guaranteed Life Insurance Products?

- Actuarially Certified Policy Standards and Benchmarking Model to Access Cost of Insurance and Policy Expenses
- Accounting for Volatility in Earnings, Crediting Rates and Interest
- Applying Monte Carlo Methodology and Stochastic Analysis Techniques
  - Used In Trust Investment Portfolio Analysis For Many Years
  - Applied to Cash Value Reserve Accounts (General Asset Account, Separate Sub Accounts, or Point to Point Indexes) Backing Up Cash Value of Non-Guaranteed Policy, Which Are Like Portfolios
  - Assesses Probability of Successful Outcome As Defined by Policy Owner/Trustee

Creditable Evaluation of Life Insurance

What is Acceptable Evaluation of Non-Guaranteed Life Insurance Products? (Continued)

- Actuarially Certified Evaluation Includes
  - Accessing the Probability that Carrier's Illustrated Scheduled Premiums Are Adequate to Successfully Sustain the Policy to Contract Maturity, Or At the Very Least, to the Insured's Life Expectancy
  - Evaluation of the Most Likely Five Year Range of Policy Lapse Given Current Scheduled Premiums, As Well As Earliest Possible Lapse
  - Evaluation of the Competitiveness of Policy Pricing of Cost of Insurance and Policy Expenses Relative to the Benchmark Policy Standards
  - Correcting Premium to Sustain Policy to Desired Age Or Contract Maturity Given Policy Owner/Trustee's Risk Tolerance
- Proper Policy Monitoring Requires Annual Actuarial Certified Evaluation
- Is Available, Affordable, And, Is "Dispute Defensible"

Creditable Evaluation of Life Insurance

Example of Actuarial Evaluation of In-Force Policy

Insured Information	
Name:	Ms. Toli Ilit
Current Age:	62
Gender:	Female
Risk Classification:	Preferred Non-Smoker
Life Expectancy (Calculated):	91

Creditable Evaluation of Life Insurance
Example of Actuarial Evaluation of In-Force Policy (Continued)

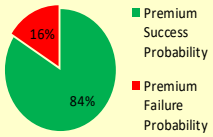
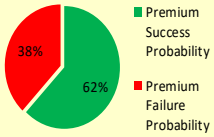
In-Force Policy Information	
Carrier:	GLF Insurance Company
Year of Policy Issue	2007
Issue Age:	50
Face Amount:	$1,000,000
Policy Type:	Variable Universal Life
Asset Allocations (Equity/Bond):	80%/20%
In-Force Policy Account/Cash Value:	$114,280 (Originally Projected $118,465)

Creditable Evaluation of Life Insurance
Example of Actuarial Evaluation of In-Force Policy (Continued)

In-Force Policy Illustration Data & Risk Tolerance	
Current Annual Funding Premium:	$7,888
Premium Paying Years:	58
Illustration Interest/Crediting Rate:	8.00%
Ilustrated Lapse Age:	97
Premium Adequacy To Sustain Policy Risk Tolerance (Confidence Level):	90%

Creditable Evaluation of Life Insurance

Example of Actuarial Evaluation of In-Force Policy (Continued)
Probability of Current Funding Premium Sustaining Policy To:

Life Expectancy				Age 100			
1,000 Randomly Generated Illustration Trials		Current Funding Premium Probability of Success/Failure		1,000 Randomly Generated Illustration Trials		Current Funding Premium Probability of Success/Failure	
							
Current Funding Premium:	$7,888	Correcting Funding Premium @ 90% Confidence Level:	$9,089	Current Funding Premium:	$7,888	Correcting Funding Premium @ 90% Confidence Level:	$13,008
Life Expectancy Age:	91			Life Expectancy Age:	91		
Earliest Lapse:	82	Correcting Funding Premium Increase/(Decrease) Over Current Funding Premium:	15%	Earliest Lapse:	82	Correcting Funding Premium Increase/(Decrease) Over Current Funding Premium:	65%
Highest 5 Year Period of Concentrated Lapses:	89-93			Highest 5 Year Period of Concentrated Lapses:	88-92		
Calculated Average Return:	9.32%	Pricing Deviation Actuarial Policy Standards Database Relative to Illustrated Policy	-4%	Calculated Average Return:	9.34%	Pricing Deviation Actuarial Policy Standards Database Relative to Illustrated Policy	-4%

Creditable Evaluation of Life Insurance

Credit For Software Creation and Development

- The Actuarially Certified Benchmarking and Policy Standards Software, Which Applies Statistical Stochastic Analysis (Monte Carlo Simulation) to Universal Life Polices (Including Variable and Equity Index), Was Invented and Developed By Richard M. Weber, MBA, CLU®, AEP® (Distinguished) and Christopher Hause, FSA, MAAA, CLU® of Ethical Edge Consulting, LLC and Hause Actuarial Solutions, LLC

Creditable Evaluation of Life Insurance

"Dispute Defensible" Policy Evaluation Summary

- Illustrations for non-guaranteed products disclaim predictive value and, at best, offer a static picture of policy performance whereas actual future values depend on continually changing future conditions. ILIT fiduciaries that rely upon illustration-based analysis and related 'subjective' risk assessments paper their file with documents that demonstrate imprudence.
- Fact-based evaluation using generally accepted actuarial methods, impartial analysis, and objective data to assess the probability that an illustration's scheduled premiums will successfully sustain the policy to contract maturity or insured life expectancy, as a minimum.
- A benchmark model tests the reasonableness of an illustration's projected values given (1) interest rate conditions prevalent on the test date, and (2) lapse, mortality and expense assumptions approximating industry norms and appropriate for the policy type.
- The goal is to help determine the relative credibility of an illustration as opposed to predicting the actual performance of a specific policy.

Creditable Evaluation of Life Insurance

Results of Actuarially Certified Benchmark Policy Standards Evaluation Utilizing Monte Carlo Simulation for Non-Guaranteed Life Insurance

- Provides Unbiased, Credible, Impartial and Fact-Based Analysis
- Provides Quantitative, Measureable Actuarially Certified Benchmark and Policy Standards for Comparisons for Cost of Insurance and Policy Expenses
- Most Importantly, Monte Carlo Simulation Accounts for Volatility in Earnings for Sub Accounts, Crediting Rates and Interest
- Accesses Probability of Carrier Illustrated Scheduled Premiums Adequacy to Sustain Policy to Chosen Duration Based On Risk Tolerance of Policy Owner.
- Is Available, Affordable, and, is "Dispute Defensible"

What Every (Fill in the Blank*) Needs to Know About Life Insurance and No One Ever Told Them

*** Attorney, Accountant, Trust Officer, Financial Planner, Life Insurance Professional**

Summary

- Despite Being a Risk Transfer Device, Life Insurance, Like All Financial Products, Has Risks
- Life Insurance Pricing Elements Are Integrated and Must Be Viewed As A Whole and Not Separately
- For Non-Guaranteed Elements of Life Insurance Policies, We Cannot Reply Upon Constant Assumption Policy Illustrations In Predicting Results or To Compare One Policy to Another
- Risk Varies By Product Type
- In Addition to Risk By Product Type, There is Also Carrier Insolvency Risk, Purchasing Power Risk, Product Suitability Risk and Diversification Risk

What Every (Fill in the Blank*) Needs to Know About Life Insurance and No One Ever Told Them

*** Attorney, Accountant, Trust Officer, Financial Planner, Life Insurance Professional**

Summary (Continued)

- Life Insurance Has to be Risk Managed
- The Process of Managing Life Insurance Policies Is Analogous To the Investment Portfolio Management Process
- Like An Investment Policy Statement (IPS) for Investment Portfolios, A Similar Written Plan for Life Insurance Called a Life Insurance Policy Management Statement Can Be Created
- The Creditable Evaluation of Life Insurance Requires Actuarial Evaluation Utilizing Actuarially Certified Policy Benchmark Standards and May Utilized Monte Carlo Simulation
- The Process of Managing Life Insurance and Creditably Evaluating Life Insurance Polices May Be Delegated To A Qualified Independent Life Insurance Consultant

Questions???

Thank You for Your Attention!