

***Betting the Over/Under:
Dying Too Soon,
Living Too Long***

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Paul Haley
Sr. VP & Chief Actuary
Retirement Income & Investments
Genworth Financial

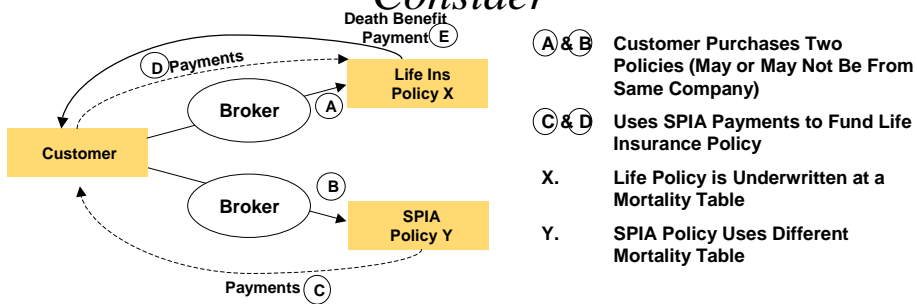
Agenda

- Assumption Differences
 - Life vs. Annuity
 - Preferred
 - Improvements
 - Interaction with Interest Rates
 - Persistency Impacts
- Arbitrage Threats
 - Impaired Risk SPIAs
 - Table Shaving
 - Programs
- UK Annuity Marketplace

Assumption Comparison

	<u>Life</u>	<u>SPIA</u>
Base Mortality	Multiple Classes Age/Sex Specific	Single Standard Class Age/Sex Specific
Impaired Risk?	Yes	Yes
Improvement	Selection Period Assumed to Wear Off Over Time	No Selection Period, But Mortality Improvements Over Time Built In
Persistency Impact	If Re-underwritten, Healthy Lives Persist. Otherwise, Unhealthy Lives Persist	No Persistency Effect (Introduction of Commutation May Change This)
Interaction with Interest Rates	Healthy Lives May Lapse and Re-enter if Rates Rise	No Interaction (Introduction of Commutation May Change This)

Base Case Transaction / Variations To Consider



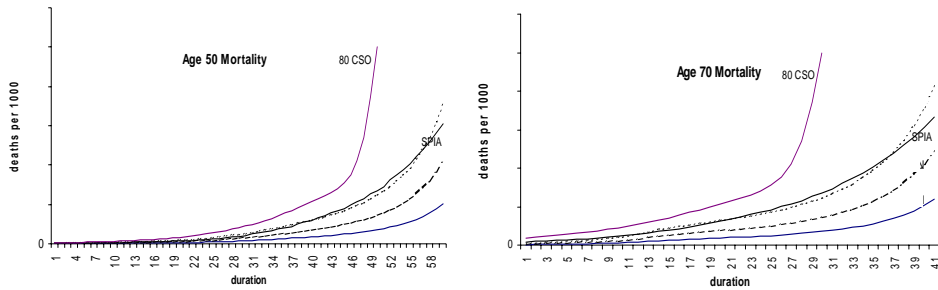
Risk Gradients

- Mortality Assumptions Significantly Different for X & Y
 - Table Shaving
 - Impaired Risk SPIA
- Information Provided for X & Y Review is Different
- Source of Customer Funds is Loan and SPIA Pays Interest and Life SPIA
- "Program" Pools Numbers of Lives

Company Implications

- Issuing Both Policies Can Adversely Affect One or Both Product Lines Performance
- Detection of Difference Difficult in Same Company, More Difficult if Separate Companies
- Creates Additional Party Interest in Long Term Performance
- Requires Screening of Multiple Lives that May Be Different From Table Uniformity Assumption

Mortality Pricing Curves for Ages 50 and 70



- Curves Show the Number of Expected Deaths Per 1,000 Lives for Each Year Following Issue
- Data is for 80 CSO and Representative Pricing for SPIAs and Various Life Classes
- SPIA Rate Is Guaranteed at Issue
- UL May Adjust Future COI Charges Up to the Regulatory Maximum
 - Driven by Mortality Experience
 - May Have Lapse Impact

Rates Similar at Early Durations; Divergence Seen as Policies Age

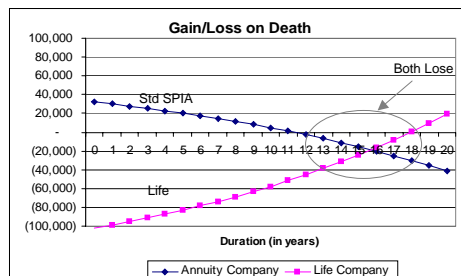
SPIA Financing Mortality Example

ASSUMPTIONS FOR ANNUITY-LIFE COMBINATION EXAMPLE

ANNUITY
 Premium \$37,689.39
 Annual Benefit \$3,867.00

75 YO A Male, Standard SPIA vs. Life

LIFE
 Annual Premium \$3,867.00
 Death Benefit \$100,000.00



BOTH
 Earned Rate 5.50%
 Monthly Calculations
 No Decrements (lapse or death)

Life premiums are due, and annuity benefits are paid, at the beginning of each year.
 Cash model only - no reserves, surplus etc held.
 Gain/Loss reflects premiums, net of expenses and benefits, accumulated at interest.

Premium Financing

The purchase of both a life and annuity policy on the same life that takes advantage of different life and annuity mortality pricing to receive a life policy payout at no cost or a reduced cost

<u>Types</u>	<u>What Is It</u>	<u>How Is It Done</u>	<u>Methods of Detection</u>
Programs	Client purchases annuity with loan and pays life policy and loan interest with annuity benefits; life payout repays loan principal and heirs keep remainder	<ul style="list-style-type: none"> • Broker solicits client(s), lender, and insurance carriers to participate in an agreement • Client purchases annuity with borrowed funds • Guaranteed return to broker, lender, and client 	<ul style="list-style-type: none"> • Request for 2 year refund provision from annuity carrier to protect lender from suicide/fraud provision of life policy • Deals typically require insurance carriers to enter into additional agreements/disclosures • Special annuity pricing based on special program expenses etc.
Individuals	Client purchases annuity with his own money and pays life policy premium with annuity benefits-heirs keep life payout tax free	<ul style="list-style-type: none"> • Broker presents client with a greater probability of achieving a life payout at a reduced cost • Guaranteed return to broker only 	

UK Annuity Market

UK Legislative Environment

- Single Premium, Non Cancellable, Immediate Payment Annuities Available / Accepted
- Individuals Required to Annuitize Pension by Age 75
 - 40% Annuitize Between 60 and 65, With a Further 25% Annuitizing Between 65 and 70
- Tax Free Cash Lump Sum Paid Upon Annuitization, Remainder Paid Over Lifetime
- Govt Trying to Encourage Pensioners to Price Annuity on Open Market

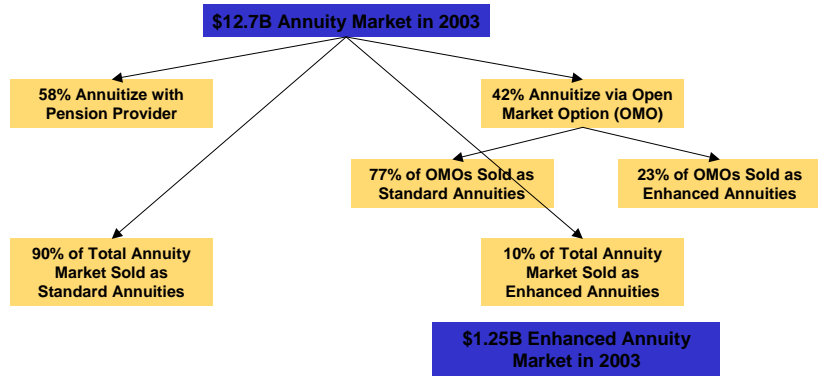
Life / Annuity Arbitrage

- Arbitrage Possibilities:
- The Success of This Initiative Will Depend on Whether a Customer Need Is Satisfied Through a Defined Distribution Route
- Are There Individuals in Ill Health With a Need for Both Income and a Lump Sum Death Benefit, Who Are Likely to Seek Advice ?
- This Issue Is Still Under Review, but Legislative Complexities Currently Make This Unattractive

Underwriting Classes

- Fully Underwritten Severely Impaired – Individual Underwriting Based on Medical Records (Client Not Required to Attend Medical Examination).
- All Others Rated Based on Application Information
- Large Standard Annuity Providers Reluctant to Offer Enhanced Annuities for Fear of Losing Competitiveness in the Larger Standard Market
- If Enhanced Market Grows Beyond 20% of the Total Market, Standard Annuity Providers Will No Longer Be Able to Assume Average Mortality of Their Annuitants. The Changing Mortality Assumptions Would Worsen Standard Annuity Rates, but Facilitate Their Entry Into Enhanced Market Without Fear of Losing Competitiveness in the Standard Market

UK Annuity Market



Annuity Classes	Providers
Standard-----	All Pension Providers
Smoker-----	3 Niche Annuity Specialists
Mild Impaired-----	Prudential & 2 Niche Annuity Specialists
Heavy Impaired-----	1 Niche Annuity Specialist
Fully Underwritten-----	4 Pension Providers & 3 Niche Annuity Specialists