# Milliman Research Report

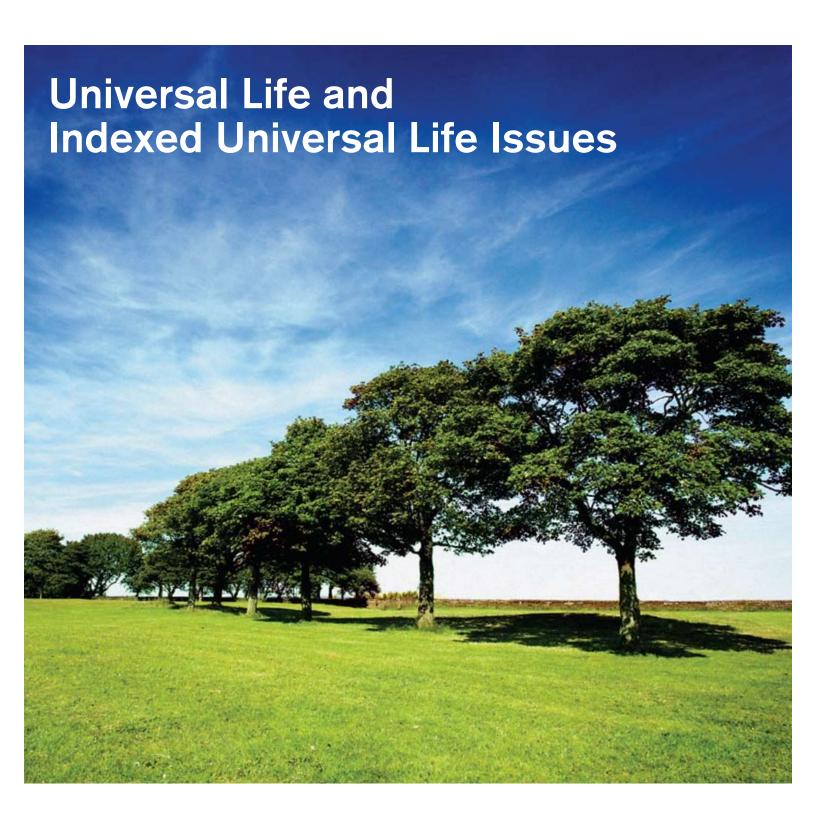
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Milliman, whose corporate offices are in Seattle, serves the full spectrum of business, financial, government, and union organizations. Founded in 1947 as Milliman & Robertson, the company has 52 offices in principal cities in the United States and worldwide. Milliman employs more than 2,400 people, including a professional staff of more than 1,100 qualified consultants and actuaries. The firm has consulting practices in employee benefits, healthcare, life insurance/ financial services, and property and casualty insurance. For further information visit www.milliman.com

# **TABLE OF CONTENTS**

BACK	GROUND	2
EXECU	UTIVE SUMMARY	3
Sale	es ·	3
Profi	fit Measures	4
Targ	get Surplus	4
Rese	erves	4
Risk	« Management	4
Unde	lerwriting	4
Prod	duct Design	5
Com	npensation	5
Prici	ing	5
Adm	ninistration	6
Illust	stration Testing	6
APPEN	NDIX I: THE SURVEY	7

# **BACKGROUND**

Universal life (UL) and indexed universal life (IUL) continue to be key areas of interest in the life insurance market today. In 2009, Milliman, Inc. conducted its third annual comprehensive survey aimed at addressing UL and IUL issues. Survey topics were determined based on input from Milliman consultants, as well as participants in the prior year's survey.

The survey was sent via e-mail to UL/IUL insurance companies on November 10, 2009; 22 companies submitted responses. The high level of participation is indicative of the great interest in this topic. The 22 companies that participated in the study are:

- Americo
- Aviva
- Bankers Life and Casualty
- Banner Life
- Columbus Life
- Conseco Insurance Company
- Farm Bureau Life
- Genworth
- ING
- John Hancock
- Kansas City Life
- Met Life
- Midland National
- Minnesota Life
- Mutual of Omaha
- National Life/Life Insurance Company of the Southwest
- Protective Life
- Prudential
- State Farm
- Sun Life Financial
- Thrivent
- UNIFI

The questions asked of survey participants can be found in Appendix I.

A detailed summary of the report (over 115 pages) may be purchased for the price of \$1,000 per company. The summary will be sent in electronic format so that it may be easily shared within the company. The summary report may be ordered by completing the order form found on the Milliman website at the following address:

http://www.milliman.com/expertise/life-financial/publications/rr/universal-life-indexed-issues-RR3-10

Participants in the survey receive a complimentary copy of the executive summary, the detailed summary, and individual company responses (on an anonymous basis).

# **EXECUTIVE SUMMARY**

#### Sales

Survey participants reported total UL sales (excluding IUL sales), measured by the sum of recurring premiums plus 10% of single premiums, of \$0.54 billion and \$1.4 billion for 2009 as of June 30 (YTD 6/30/09) and calendar year 2008, respectively. The level of sales reported for 2008 was consistent with sales reported for the two preceding calendar years. The most significant change in the mix of total individual UL sales was seen for YTD 6/30/09 relative to prior periods. UL with secondary guarantees (ULSG) sales as a percent of total individual UL sales increased about 10% for survey participants during this period. Cash accumulation UL sales dropped 5% and current assumption UL dropped 4% during this same period relative to 2008. Individual company results were varied, but eight of the 22 participants reported an increase in ULSG sales as a percent of total individual UL sales in both 2008 and YTD 6/30/09.

Average amounts per policy reported by survey participants for all UL types fell from 2008 to YTD 6/30/09, on both a premium and face amount basis. ULSG average amounts per policy (premium and face amount) and current assumption average premiums per policy had also dropped from 2007 to 2008. From 2008 to YTD 06/30/09, the total UL average premium per policy dropped from \$9,956 to \$6,797 and the total average face amount per policy dropped from \$339,300 to \$299,000. The drop was even more significant for IUL plans. From 2008 to YTD 6/30/09, IUL average premium per policy dropped from \$20,915 to \$7,812 and average face amount per policy dropped from \$519,500 to \$313,400. Perhaps some insurers have taken steps to limit their large face amount and old age business, which led to a drop in average premiums, average face amounts, and as noted below, average issue ages. The ranking of UL plans by average amount per policy changed in each of the four reporting periods of the survey.

Expectations regarding the mix of UL/IUL business in the future vary widely by company. There is some expectation that the high cost of capital reserves will lead to a shift in sales in the future from ULSG products to cash accumulation products.

A weighted average issue age was determined for sales of survey participants based on the midpoint of the specified issue age ranges. Average ages dropped significantly for cash accumulation UL and current assumption UL products from 2008 to YTD 6/30/09. The table in Figure 1 summarizes the average ages calculated based on sales reported by issue age range and gender for 2008 and YTD 6/30/09.

FIGURE 1: AVERAGE AGES				
GENDER	ULSG	CASH ACCUMULATION UL #	CURRENT ASSUMPTION UL	IUL
		BASED ON 2008 SA	LES, PREMIUM	
MALE	62	63	60	51
FEMALE	65	63	57	52
		BASED ON 2008 SALE	S, FACE AMOUNT	
MALE	56	51	49	42
FEMALE	57	50	45	42
		BASED ON YTD 6/30/09	SALES, PREMIUM	
MALE	62	55	53	51
FEMALE	64	53	49	52
		BASED ON YTD 6/30/09 S	ALES, FACE AMOUN	IT
MALE	55	45	42	42
FEMALE	55	42	39	41

The distribution of ULSG sales by underwriting class was similar between 2008 and YTD 6/30/09. However, there was a shift in sales to the top non-smoker/non-tobacco (NS/NT) classes from 2008 to YTD 6/30/09 for cash accumulation UL, current assumption UL, and IUL sales. A reduction in the number of underwriting classes was also reported by some survey participants, consistent with a move to simplified issue plans.

#### **Profit Measures**

The predominant profit measure reported by survey participants continues to be an after-tax, after-capital statutory return on investment/internal rate of return (ROI/IRR). Few participants changed their profit goals or measures because of the recent financial crisis. The median ROI/IRR profit target reported was 12% for all products. Survey participants reported their actual results relative to profit goals for 2008 and YTD 6/30/09. Nearly all cash accumulation UL and IUL participants are at least meeting their profit goals. Eight out of 15 ULSG participants and 10 of 13 current assumption UL participants were at least meeting their profit goals in 2008. YTD 6/30/09 these numbers dropped to six out of 15 ULSG participants and eight of 13 current assumption UL participants that were at least meeting their profit goals. The primary reasons given for not meeting profit goals were interest earnings and expenses.

#### **Target Surplus**

The majority of survey participants continue to set target surplus relevant to pricing new sales issued today on a National Association of Insurance Commissioners (NAIC) basis. The overall NAIC risk-based capital percent of company action level ranged from 200% to 350% for ULSG and cash accumulation markets, and from 250% to 350% for current assumption markets and IUL markets. Few participants indicate they are well prepared for the changes to the C-3 component of risk-based capital.

#### Reserves

Most respondents to the survey expect that principles-based reserves (PBR) will be in place in 2012 at the earliest. Participants' comments regarding their outlook on the impact of PBR were nearly evenly split between those that do not expect a material impact and those that expect a reduction in reserves. The majority of participants have not examined the underwriting criteria scoring system for establishing a valuation mortality table. Also, few survey participants have modeled PBR-type reserves on existing UL products. Thirteen participants are using or moving toward preferred mortality splits and/or lapses in reserves.

#### **Risk Management**

The cost of financing assumed in pricing ULSG products currently ranges from 100 to 300 bps. Three participants assume the same costs that were assumed a year ago, three assume a lower cost, and two assume a higher cost.

Nearly half of survey participants are reacting to the current marketplace by riding it out and eight of the 22 participants are repricing. The implications of the recent financial crisis on capital solutions are varied among survey participants. Nearly a third of them reported very little or no implications. Others reported implications that relate to limited external funding solution availability and/or higher costs.

Retention limits range from \$250,000 to \$30 million for survey participants.

Few participants hedge the investment risk in ULSG products, but all 10 IUL participants reported that they hedge the index included in their IUL product.

#### Underwriting

Table-shaving programs are offered by seven of the 22 participants, and all reported their programs will be continued.

The most popular emerging underwriting tools being used by survey participants, especially at the older ages, are prescription drug databases (16), cognitive impairment testing (11), tele-underwriting/telephonic screening (11), and activities of daily living (ADL) measures (11).

A few participants (5) have special simplified underwriting products and each described a different special market where the product is used.

The majority of survey participants have created unique preferred risk parameters, especially for the older ages. The use of such parameters has increased year by year based on the use reported in Milliman's previous two annual surveys.

#### **Product Design**

Consistent with past surveys, the most popular secondary guarantee design of ULSG products reported by survey participants features a shadow account with a single fund.

Twelve participants repriced their ULSG design in the last 12 months. The general level of premium rates on the new basis versus the old basis increased for six participants and decreased for four participants. Ten participants intend to modify their secondary guarantee products in the next 12 months.

Five survey participants currently offer a long-term care (LTC) accelerated benefit rider; some address the need via chronic care benefits. Eight companies expect to develop an LTC combination product in the next 12 to 24 months, which, when coupled with the five companies already offering LTC riders, implies that nearly 60% of survey respondents expect to market LTC combination plans within two years and an even higher percentage expect to offer some type of LTC solution.

Eighteen survey participants currently offer a living benefit or expect to offer a living benefit in the next 12 months. In nearly all cases, participants are providing an accelerated death benefit, primarily for terminal illness.

The majority of survey participants design UL/IUL products that allow policyholders to choose between the cash value accumulation test (CVAT) or the guideline premium test to comply with the definition of life insurance.

#### Compensation

Compensation structures are quite varied among survey participants. About half of the companies do not vary commissions and marketing allowables by product type. Median commissions, as well as the range of commissions, were similar between ULSG and cash accumulation UL. IUL products had slightly higher first-year and renewal commissions. Current assumption UL products had the highest first-year and renewal commissions.

Rolling commission target premiums are becoming more common in ULSG compensation programs. Target premiums are commonly rolled for two years.

#### Pricing

A portfolio crediting strategy is assumed in pricing ULSG products by the majority of survey participants. Earned rates assumed in pricing ULSG products ranged from 5.50% to 6.50%. Eight of the nine participants that reported changes in earned rates reported a decrease relative to those assumed in pricing one year ago.

The use of stochastic modeling to evaluate ULSG investment risk is used by nine out of 18 participants. This level of use has been constant for the past several years, but is surprisingly low given the industry's greater awareness of the risks involved in ULSG products and the movement from a formula-based framework to a principles-based approach.

Nearly all survey participants test sensitivities with respect to the net investment rate, lapse rates, and mortality rates on all UL products. A significant number of participants also test lapse rates in the tail on ULSG products and expenses on all UL products.

Seven participants reported their mortality assumptions are strictly based on company experience. All other participants use various combinations of company experience, guidance from reinsurers, and consultants' recommendations in developing mortality assumptions. The majority of survey participants

reported that the slope of their mortality assumption is more similar to the 2001 Valuation Basic Table (VBT) than the 1975-1980 Select & Ultimate Table or the 2008 VBT. Most participants vary their preferred to standard ratio by issue age and/or by duration. Nearly two-thirds of the companies assume that preferred to standard rates eventually converge and one-third assume they do not converge. Thirteen of the 22 participants do not assume mortality improvement in pricing UL/IUL products.

Economic capital is reflected in pricing by seven of the 22 survey participants. Two participants reflect market-consistent economic value in pricing of UL/IUL products.

There is a wide range of expense structures among survey participants.

#### Administration

Administrative platforms for participants vary widely.

Participants reported that it takes from one to six months to implement a repricing of an existing UL/IUL product, from three months to 15 months for the redesign of an existing product, and from five to 21 months for the development of a new UL/IUL product.

#### **Illustration Testing**

The rate used in IUL illustrations ranges from 6.23% to 7.94%.

More than half of the survey participants reported they find that illustration actuary requirements create constraints in UL/IUL pricing. The majority of those participants also believe the constraints are more severe for certain product types. A significant number of the participants annually file illustration actuary certifications at the end of the calendar year. Nearly all participants revisit assumptions specific to illustration actuary certifications during the timeframe specific to the annual cycle for testing and certification.

# APPENDIX I THE SURVEY

#### Milliman, Inc.

#### Universal Life and Indexed Universal Life Survey

This survey covers individual U.S. universal life insurance and indexed universal life insurance plans. Survivorship life and variable universal life plans are NOT included.

Throughout the survey the terms UL with secondary guarantees, cash accumulation UL, current assumption UL, and total individual UL are used. Following are the definitions of these terms:

**UL with secondary guarantees (ULSG)**: A UL product designed specifically for the death benefit guarantee market that features long-term (lifetime or near lifetime) no-lapse guarantees either through a rider or as part of the base policy.

**Cash accumulation UL**: A UL product designed specifically for the accumulation-oriented market where cash accumulation and efficient distribution are the primary concerns of the buyer. Within this category are products that allow for high early cash value accumulation, typically through the election of an accelerated cash value rider.

**Current assumption UL**: A UL product designed to offer the lowest cost death benefit coverage without death benefit guarantees. Within this category are products sometimes referred to as *dollar-solve* or *term-alternative* products.

**Total individual UL**: Individual UL products that include ULSG, cash accumulation UL and current assumption UL, but do not include indexed UL.

Sales refers to the sum of recurring premiums plus 10% of single premiums.

#### Sales

A. Please provide historical UL/IUL sales (in \$millions) broken down by market.

	(A)+(B)+(C)	(A) UL WITH	(B) CASH	(C) CURRENT	
CALENDAR	TOTAL	SECONDARY	ACCUMULATION	ASSUMPTION	
YEAR	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
2006					
2007					
2008					
YTD 6/30/09					

B. Please provide historical UL/IUL average sizes (\$) broken down by market.

# AVERAGE PREMIUM PER POLICY

CALENDAR YEAR	(A)+(B)+(C) TOTAL INDIVIDUAL UL	(A) UL WITH SECONDARY GUARANTEES	(B) CASH ACCUMULATION UL	(C) CURRENT ASSUMPTION UL	IUL
2006					
2007					
2008					
YTD 6/30/09					

# **AVERAGE FACE AMOUNT PER POLICY**

CALENDAR YEAR	(A)+(B)+(C) TOTAL INDIVIDUAL UL	(A) UL WITH SECONDARY GUARANTEES	(B) CASH ACCUMULATION UL	(C) CURRENT ASSUMPTION UL	IUL
2006					
2007					
2008					
YTD 6/30/09					

C. What are your expectations regarding the mix of UL/IUL business in the future?

	TOTAL	SECONDARY GUARANTEES	CASH ACCUMULATION UL	CURRENT ASSUMPTION UL	IUL
TODAY	100%				
2 YEARS FROM NOW	100%				
<b>5 YEARS FROM NOW</b>	100%				

If your expectations have changed in the last year please explain the reason for the change.

D. Within each market, please provide 2008 UL/IUL sales (in \$millions) by distribution channel.

# SALES (\$ PREMIUMS)

DISTRIBUTION CHANNEL	(A)+(B)+(C) TOTAL INDIVIDUAL UL	(A) UL WITH SECONDARY GUARANTEES	(B) CASH ACCUMULATION UL	(C) CURRENT ASSUMPTION UL	IUL
PPGA					
BROKERAGE					
MLEA					
CAREER AGENT					
STOCKBROKERS					
FINANCIAL INSTITUTIONS					
WORKSITE					
HOME SERVICE					
DIRECT RESPONSE					

# SALES (FACE AMOUNT)

DISTRIBUTION CHANNEL	(A)+(B)+(C) TOTAL INDIVIDUAL UL	(A) UL WITH SECONDARY GUARANTEES	(B) CASH ACCUMULATION UL	(C) CURRENT ASSUMPTION UL	IUL
PPGA					
BROKERAGE					
MLEA					
CAREER AGENT					
STOCKBROKERS					
FINANCIAL INSTITUTIONS					
WORKSITE					
HOME SERVICE					
DIRECT RESPONSE					

Within each market, please provide YTD 6/30/09 UL/IUL sales (in \$millions) by distribution channel.

#### SALES (\$ PREMIUMS)

DISTRIBUTION CHANNEL	(A)+(B)+(C) TOTAL INDIVIDUAL UL	(A) UL WITH SECONDARY GUARANTEES	(B) CASH ACCUMULATION	(C) CURRENT ASSUMPTION	
CHANNEL	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
PPGA					
BROKERAGE					
MLEA					
CAREER AGENT					
STOCKBROKERS					
FINANCIAL INSTITUTIONS					
WORKSITE					
HOME SERVICE					
DIRECT RESPONSE					

SALES (FACE AMOUNT)					
	(A)+(B)+(C)	(A) UL WITH	(B) CASH	(C) CURRENT	
DISTRIBUTION	TOTAL	SECONDARY	ACCUMULATION	ASSUMPTION	
CHANNEL	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
PPGA					
BROKERAGE					
MLEA					
CAREER AGENT					
STOCKBROKERS					
FINANCIAL INSTITUTIONS					
WORKSITE					
HOME SERVICE					

If there has been a change in the distribution of sales by channel in recent years, please describe the change and explain the reason for the shift.

E. Within each market, please provide 2008 UL/IUL sales (in \$millions) by premium type.

DIRECT RESPONSE

	(A)+(B)+(C)	(A) UL WITH	(B) CASH	(C) CURRENT	
	TOTAL	SECONDARY	ACCUMULATION	ASSUMPTION	
PREMIUM TYPE	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
SINGLE PREMIUM					
PERIODIC PREMIUM					
LIMITED PAY					

Within each market, please provide YTD 6/30/09 UL/IUL sales (in \$millions) by premium type.

PREMIUM TYPE	(A)+(B)+(C) TOTAL INDIVIDUAL UL	(A) UL WITH SECONDARY GUARANTEES	(B) CASH ACCUMULATION UL	(C) CURRENT ASSUMPTION UL	IUL
SINGLE PREMIUM					
PERIODIC PREMIUM					
LIMITED PAY					

If there has been a change in the distribution of sales by premium type in recent years, please describe the change and explain the reason for the shift.

F. Within each market, please provide 2008 UL/IUL sales (in \$millions) by issue age group.

# SALES (\$ PREMIUMS) - MALES

ISSUE AGE	(A)+(B)+(C) TOTAL	(A) UL WITH SECONDARY	(B) CASH ACCUMULATION	(C) CURRENT	
GROUP	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
< 25					
25 - 34					
35 - 44					
45 - 54					
55 - 64					
65 - 74					
75+					

# SALES (FACE AMOUNT) - MALES

ISSUE AGE GROUP	(A)+(B)+(C) TOTAL INDIVIDUAL UL	(A) UL WITH SECONDARY GUARANTEES	(B) CASH ACCUMULATION UL	(C) CURRENT ASSUMPTION UL	IUL
GROUP	INDIVIDUALUL	GUARANTEES	<u> </u>	OL .	IUL
< 25					
25 - 34					
35 - 44					
45 - 54					
55 - 64					
65 - 74					
75+					

# SALES (\$ PREMIUMS) - FEMALES

ISSUE AGE	(A)+(B)+(C) TOTAL	(A) UL WITH SECONDARY	(B) CASH ACCUMULATION	(C) CURRENT ASSUMPTION	
GROUP	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
< 25					
25 - 34					
35 - 44					
45 - 54					
55 - 64					
65 - 74					
75+					

#### SALES (FACE AMOUNT) - FEMALES

ISSUE AGE GROUP	(A)+(B)+(C) TOTAL INDIVIDUAL UL	(A) UL WITH SECONDARY GUARANTEES	(B) CASH ACCUMULATION UL	(C) CURRENT ASSUMPTION UL	IUL
< 25					
25 - 34					
35 - 44					
45 - 54					
55 - 64					
65 - 74					
75+					

Within each market, please provide YTD 6/30/09 UL/IUL sales (in \$millions) by issue age group.

# SALES (\$ PREMIUMS) - MALES

ISSUE AGE GROUP	(A)+(B)+(C) TOTAL INDIVIDUAL UL	(A) UL WITH SECONDARY GUARANTEES	(B) CASH ACCUMULATION UL	(C) CURRENT ASSUMPTION UL	IUL
< 25					
25 - 34					
35 - 44					
45 - 54					
55 - 64					
65 - 74					
75+					

# SALES (FACE AMOUNT) - MALES

ISSUE AGE GROUP	(A)+(B)+(C) TOTAL INDIVIDUAL UL	(A) UL WITH SECONDARY GUARANTEES	(B) CASH ACCUMULATION UL	(C) CURRENT ASSUMPTION UL	IUL
< 25					
25 - 34					
35 - 44					
45 - 54					
55 - 64					
65 - 74					
75+					

#### SALES (\$ PREMIUMS) - FEMALES

ISSUE AGE	(A)+(B)+(C) TOTAL	(A) UL WITH SECONDARY	(B) CASH	(C) CURRENT	
GROUP	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
< 25					
25 - 34					
35 - 44					
45 - 54					
55 - 64					
65 - 74					
75+					

# SALES (FACE AMOUNT) - FEMALES

ISSUE AGE	(A)+(B)+(C) TOTAL	(A) UL WITH SECONDARY	(B) CASH ACCUMULATION	(C) CURRENT	
ISSUE AGE	IOIAL	SECONDARI	ACCOMOLATION	ASSUMPTION	
GROUP	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
< 25					
25 - 34					
35 - 44					
45 - 54					
55 - 64					
65 - 74					
75+					

If there has been a change in the distribution of sales by issue age and/or gender in recent years, please describe the change and explain the reason for the shift.

G. Within each market, please provide 2008 UL/IUL sales (in \$millions) by underwriting class.

# SALES (\$ PREMIUMS)

UNDERWRITING	(A)+(B)+(C) TOTAL	(A) UL WITH SECONDARY	(B) CASH ACCUMULATION	(C) CURRENT ASSUMPTION	
CLASS	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
BEST NS/NT					
CLASS					
NEXT BEST					
NS/NT CLASS					
SECOND NEXT BEST					
NS/NT CLASS					
THIRD NEXT BEST					
NS/NT CLASS					
FOURTH NEXT BEST					
NS/NT CLASS					
BEST S/T CLASS					
NEXT BEST					
S/T CLASS					
SECOND NEXT BEST					
S/T CLASS					

# SALES (FACE AMOUNT)

UNDERWRITING	(A)+(B)+(C) TOTAL	(A) UL WITH SECONDARY	(B) CASH ACCUMULATION	(C) CURRENT ASSUMPTION	
CLASS	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
BEST NS/NT					
CLASS					
NEXT BEST					
NS/NT CLASS					
SECOND NEXT BEST					
NS/NT CLASS					
THIRD NEXT BEST					
NS/NT CLASS					
FOURTH NEXT BEST					
NS/NT CLASS					
BEST S/T CLASS					
NEXT BEST					
S/T CLASS					
SECOND NEXT BEST					
S/T CLASS					

Within each market, please provide YTD 6/30/09 UL/IUL sales (in \$millions) by underwriting class.

# SALES (\$ PREMIUMS)

UNDERWRITING	(A)+(B)+(C) TOTAL	(A) UL WITH SECONDARY	(B) CASH ACCUMULATION	(C) CURRENT ASSUMPTION	
CLASS	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
BEST NS/NT					
CLASS					
NEXT BEST					
NS/NT CLASS					
SECOND NEXT BEST					
NS/NT CLASS					
THIRD NEXT BEST					
NS/NT CLASS					
FOURTH NEXT BEST					
NS/NT CLASS					
BEST S/T CLASS					
NEXT BEST					
S/T CLASS					
SECOND NEXT BEST					
S/T CLASS					
SALES (FACE AMOUNT)					
	(A)+(B)+(C)	(A) UL WITH	(B) CASH	(C) CURRENT	
UNDERWRITING	TOTAL	SECONDARY	ACCUMULATION	ASSUMPTION	
CLASS	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL
BEST NS/NT					
CLASS					

**CLASS** 

**NEXT BEST** 

NS/NT CLASS

**SECOND NEXT BEST** 

NS/NT CLASS

THIRD NEXT BEST

NS/NT CLASS

**FOURTH NEXT BEST** 

**NS/NT CLASS** 

# BEST S/T CLASS

**NEXT BEST** 

S/T CLASS
SECOND NEXT BEST

S/T CLASS

If there has been a change in the distribution of sales by underwriting class in recent years, please describe the change and explain the reason for the shift.

H. Please provide 2008 UL/IUL sales (in \$millions) on all business with LTC Riders

# SALES (\$ PREMIUMS)

	(A)+(B)+(C)	(A) UL WITH	(B) CASH	(C) CURRENT	
LTC	TOTAL	SECONDARY	ACCUMULATION	ASSUMPTION	
RIDER TYPE	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL

WITH LTC ACCELERATED

**BENEFIT RIDER ONLY** 

WITH LTC ACCELERATED

**BENEFIT RIDER** 

AND EXTENSION

OF BENEFITS RIDER

WITH LTC ACCELERATED

BENEFIT RIDER, EXTENSION OF BENEFITS RIDER, AND

**INFLATION PROTECTION RIDER** 

# SALES (FACE AMOUNT)

	(A)+(B)+(C)	(A) UL WITH	(B) CASH	(C) CURRENT	
LTC	TOTAL	SECONDARY	ACCUMULATION	ASSUMPTION	
RIDER TYPE	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL

WITH LTC ACCELERATED

**BENEFIT RIDER ONLY** 

WITH LTC ACCELERATED

**BENEFIT RIDER** 

AND EXTENSION

OF BENEFITS RIDER

WITH LTC ACCELERATED

BENEFIT RIDER, EXTENSION

OF BENEFITS RIDER, AND

INFLATION PROTECTION RIDER

Please provide YTD 6/30/09 UL/IUL sales (in \$millions) on all business with LTC Riders

# SALES (\$ PREMIUMS)

	(A)+(B)+(C)	(A) UL WITH	(B) CASH	(C) CURRENT	
LTC	TOTAL	SECONDARY	ACCUMULATION	ASSUMPTION	
RIDER TYPE	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL

WITH LTC ACCELERATED BENEFIT RIDER ONLY

WITH LTC ACCELERATED

BENEFIT RIDER

AND EXTENSION

OF BENEFITS RIDER

WITH LTC ACCELERATED

**BENEFIT RIDER, EXTENSION** 

OF BENEFITS RIDER, AND

**INFLATION PROTECTION RIDER** 

# SALES (FACE AMOUNT)

	(A)+(B)+(C)	(A) UL WITH	(B) CASH	(C) CURRENT	
LTC	TOTAL	SECONDARY	ACCUMULATION	ASSUMPTION	
RIDER TYPE	INDIVIDUAL UL	GUARANTEES	UL	UL	IUL

WITH LTC ACCELERATED

**BENEFIT RIDER ONLY** 

WITH LTC ACCELERATED

BENEFIT RIDER

**AND EXTENSION** 

OF BENEFITS RIDER

WITH LTC ACCELERATED

BENEFIT RIDER, EXTENSION

OF BENEFITS RIDER, AND

INFLATION PROTECTION RIDER

Please describe any actions you have taken in light of the significant declines in UL/IUL production in the industry in the first half of 2009.

#### **Profit Measures**

A. Please provide responses relevant to the pricing of new sales issued today.

PROFIT MEASURES AND GOALS	UL WITH SECONDARY GUARANTEES	CASH ACCUMULATION UL	CURRENT ASSUMPTION UL	IUL
STATUTORY				
STATUTORY ROI/IRR (%)				
AFTER-TAX? (Y/N)				
AFTER-CAPITAL? (Y/N)				
PRIMARY OR SECONDARY MEASURE?				
STATUTORY ROA (BPS)				
AFTER-TAX? (Y/N)				
AFTER-CAPITAL? (Y/N)				
PRIMARY OR SECONDARY MEASURE?				
PROFIT MARGIN (% OF PREMIUM)				
AFTER-TAX? (Y/N)				
AFTER-CAPITAL? (Y/N)				
PRIMARY OR SECONDARY MEASURE?				
OTHER (DESCRIBE)				
AFTER-TAX? (Y/N)				
AFTER-CAPITAL? (Y/N)				
PRIMARY OR SECONDARY MEASURE?				

# GAAP

GAAP ROE (%)

AFTER-TAX? (Y/N)

AFTER-CAPITAL? (Y/N)

PRIMARY OR SECONDARY MEASURE?

HOW IS ROE MEASURED OVER THE

LIFE OF THE BUSINESS?

AVERAGE PROFITS/

**AVERAGE CAPITAL? (Y/N)** 

**DISCOUNTED PROFITS /** 

DISCOUNTED CAPITAL? (Y/N)

OTHER (PLEASE DESCRIBE)

GAAP ROA (BPS)

AFTER-TAX? (Y/N)

AFTER-CAPITAL? (Y/N)

PRIMARY OR SECONDARY MEASURE?

OTHER (DESCRIBE)

AFTER-TAX? (Y/N)

AFTER-CAPITAL? (Y/N)

PRIMARY OR SECONDARY MEASURE?

B. If your profit goals changed in the last two years, please describe the change in basis (e.g. statutory IRR to statutory profit margin) and/or the change in target (e.g. increased from 10% to 12%) and the rationale for the change.

C1. Indicate with an *X* your actual results for 2008 relative to profit goals:

UL WITH CASH CURRENT
SECONDARY ACCUMULATION ASSUMPTION
GUARANTEES UL UL IUL

EXCEED PROFIT GOALS
MEETING OR CLOSE TO PROFIT GOALS
SHORT OF PROFIT GOALS

C1.1 If short of profit goals, which of the following factors were primary contributors to the shortfall? (indicate with an X)

FACTOR	UL WITH SECONDARY GUARANTEES	CASH ACCUMULATION UL	CURRENT ASSUMPTION UL	IUL
INTEREST EARNINGS?				
MORTALITY?				
EXPENSES?				
OTHER? (PLEASE DESCRIBE)				

C2. Indicate with an X your actual results for YTD 6/30/09 relative to profit goals:

UL WITH	CASH	CURRENT	
SECONDARY	ACCUMULATION	ASSUMPTION	
GUARANTEES	UL	UL	IUL

EXCEED PROFIT GOALS
MEETING OR CLOSE TO PROFIT GOALS
SHORT OF PROFIT GOALS

C2.1 If short of profit goals, which of the following factors were primary contributors to the shortfall? (indicate with an X)

FACTOR	UL WITH SECONDARY GUARANTEES	CASH ACCUMULATION UL	CURRENT ASSUMPTION UL	IUL
INTEREST EARNINGS?				
MORTALITY?				
EXPENSES?				
OTHER? (PLEASE DESCRIBE)				

# **Target Surplus**

A. Please provide responses relevant to the pricing of new sales issued today.

TARGET SURPLUS BASIS	UL WITH SECONDARY GUARANTEES	CASH ACCUMULATION UL	CURRENT ASSUMPTION UL	IUL
OVERALL NAIC RBC				
(% OF COMPANY ACTION LEVEL)				
% OF NET AMOUNT AT RISK				
% OF RESERVES				
% OF PREMIUM				
S&P (% OF CAPITAL ADEQUACY RATIO)				
A.M. BEST (% BCAR)				
% MCCSR				
INTERNAL FORMULA				
(EXPRESS AS A % OF NAIC CAL)				
OTHER (PLEASE DESCRIBE AND				
EXPRESS AS A % OF NAIC CAL)				

- B. What change in target surplus over the last year was due to the financial markets crisis? (Express in terms of % increase or % decrease in target surplus).
- C. How well are you prepared for the changes to the C-3 component of risk based capital? If you performed the stochastic exclusion test, what were the results (greater or less than 4% ratio)? Is this the result you expected for your UL block? If not, how is it different? For your in-force block, if the company performed the stochastic analysis for C-3 today, would the C-3 requirement be zero?

# **Reserves**

- A. What is your outlook on the impact of principles-based reserves (PBR) relative to your UL/IUL business? Realistically, when do you think that PBR will be in place? Do you anticipate your company will implement PRB immediately or over the five year phase in period allowed?
- B. Have you/your company examined the underwriting criteria scoring system for establishing a valuation morality basis?
- C. Have you modeled PBR-type reserves on existing products? Have you developed new designs for consideration under PBR?

<b>UL WITH</b>	CASH	CURRENT	
SECONDARY	ACCUMULATION	ASSUMPTION	
<b>GUARANTEES</b>	UL	UL	IUL

HAVE YOU MODELED PBR-TYPE RESERVES ON EXISTING PRODUCTS?

HAVE YOU DEVELOPED NEW DESIGNS FOR CONSIDERATION UNDER PBR?

D. Preferred structure 2001 CSO and lapses

PLEASE INDICATE WITH AN X WHICH OF
THE FOLLOWING APPROACHES YOU ARE
USING OR ARE MOVING TOWARD.

UL WITH	CASH	CURRENT	
SECONDARY	ACCUMULATION	ASSUMPTION	
GUARANTEES	UL	UL	IUL

- A. PREFERRED MORTALITY SPLITS AND LAPSES IN RESERVES
- **B. PREFERRED MORTALITY SPLITS ONLY**
- C. LAPSES ONLY
- D. NO PREFERRED MORTALITY SPLITS AND NO LAPSES

If item d. above was selected, please explain why the preferred structure 2001 CSO Mortality table and/ or lapses are not being taken advantage of.

If items a. or b. were selected, do you intend to use the preferred structure 2001 CSO Mortality Table for valuing policies issued prior to January 1, 2007, when the revised regulation is approved?

#### **Risk Management**

A. Please indicate your use of the following risk management measures regarding your UL/IUL business:

#### **RISK MANAGEMENT MEASURE**

**CURRENTLY** 

**ONE YEAR AGO** 

#### **EXTERNAL REINSURANCE**

IF YES, WHAT FORM OF REINSURANCE IS USED (YRT, COINSURANCE)?

IF YES, IS ONSHORE OR OFFSHORE REINSURANCE USED?

#### **INTERNAL REINSURANCE**

IF YES, IS ONSHORE OR OFFSHORE REINSURANCE USED?

#### ARE THE CAPITAL MARKETS ACCESSED FOR SUPPORT?

IF YES, ARE PUBLIC OR PRIVATE SECURITIATIONS ACCESSED?

B. Have you structured capital solutions so you are allowed to hold AXXX-type reserves as tax reserves?

CURRENTLY

**ONE YEAR AGO** 

# HAVE YOU STRUCTURED CAPITAL SOLUTIONS SO YOU ARE ALLOWED TO HOLD AXXX-TYPE RESERVES AS TAX RESERVES?

C. What cost of financing do you assume in pricing your ULSG products? If changes were made to your assumption in the last year, when were they made?

CURRENTLY

**ONE YEAR AGO** 

# WHAT COST OF FINANCING DO YOU ASSUME IN PRICING YOUR ULSG PRODUCTS?

D. How are you reacting to the current marketplace?

#### **HOW ARE YOU REACTING TO THE CURRENT MARKETPLACE?**

#### REPRICING

**RIDING IT OUT** 

OTHER (PLEASE DESCRIBE)

- E. What implications has the recent financial crisis had on your capital solutions?
- F. What are your retention limits?
- G. Do you hedge the investment rate risk in your UL with secondary guarantee business?
- H. Do you hedge the index included in your IUL with derivative instruments or accept the risk?

If you hedge, please describe the hedging strategy you use to fund the index credits for IUL. If you hedge, what is the threshold of volume (account value) before hedging is economically efficient? If you hedge, do you hedge your IUL with your indexed annuity business?

Underwriting
A. Do you have a table-shaving program? (Y/N)
If yes:
Please describe your table-shaving program. What is the age range offering? What is the maximum number of tables that may be shaved? Have you modified your program in the last two years? If yes, please describe. Do you expect to continue your table-shaving program?
B. Are you using any new underwriting developments, especially at the older ages?
Do you use tele-underwriting or telephonic screening? Do you use cognitive impairment testing? Do you use ADL measures? Do you use prescription drug database searches? Have you developed additional questions on your application? If yes to any of the above, please describe. Which of these has changed in the last year and how?
C. Do you have any special simplified issue underwritten products for special markets?
If yes:
What are the markets? Are the new tools described above triggering this activity?
If no:
Are you thinking of new programs in the future?
D. Have you created unique preferred risk parameters for the older ages? (indicate Y/N):
1) Family history 2) Cholesterol 3) BMI 4) Other (please describe)

	oduct Design When a UL with secondary guarantee product is funded on a guaranteed basis, on average at what duration does the cash value go to zero, if ever?
В.	On UL with secondary guarantees, please indicate with an X which design(s) you offer:
	Minimum scheduled premium design Shadow account design with a single fund Shadow account design with multiple funds Hybrid (please describe)
	you have a minimum scheduled premium design, how late can the premium be paid to still meet the nimum premium requirement (e.g., 30 days, 60 days)?
C.	Did you reprice your UL with Secondary Guarantee product in the last 12 months?
	If yes, please describe the general level of rates on the new vs. the old basis.
D.	Do you expect to modify your secondary guarantees in the next 12 months?
	If yes, is the modification coincident with your migration to a product priced on the interim solution (AG 38 Section 8C)?
	If no, are you waiting for principles-based reserves to be effective prior to making any changes?
E.	Do your UL with secondary guarantee products offer cash options? If yes, what % of your UL secondary guarantee sales in 2008 included the cash option? How is the cash being positioned? If you currently do not offer cash options, are you considering development of such options in the next 12 months?
F.	Do you currently offer a long term care accelerated benefit rider today?
	Do you expect to develop LTC combination products in the next 12 to 24 months?
G.	Do you currently offer other living benefits (terminal illness, critical illness, etc.) or expect to offer a living benefit in the next 12 months?
	If you currently offer a living benefit, what is the benefit design?
Н.	Does your IUL product automatically allocate money to the fixed account so charges are deducted from the fixed account and the indexed accounts are not invaded?
l.	Do you have a Death Benefit Option C (also known as Death Benefit Option 3) that is equal to the stated amount plus the sum of premiums?
J.	Are your UL/IUL products designed to meet the cash value accumulation test (CVAT) or guideline premium test? (Indicate Y/N)
	All CVAT  All guideline premium  Mix of CVAT and guideline premium  Policyholder choice

# Compensation

A. Please provide the following components of your compensation programs by market type: (Report total compensation across all levels of producers, excluding BGA bonuses).

UL WITH	CASH	CURRENT	
SECONDARY	ACCUMULATION	ASSUMPTION	
GUARANTEES	UL	UL	IUL

TYPICAL FIRST YEAR COMMISSION -

**UP TO TARGET** 

**TYPICAL FIRST YEAR COMMISSION -**

**EXCESS** 

**TYPICAL RENEWAL COMMISSIONS** 

**MARKETING ALLOWABLE (INCLUDES** 

**EXPENSES FOR HOME OFFICE SUPPORT** 

AND/OR ALLOWABLES FOR BGA SUPPORT);

**ADDITIVE TO COMMISSION** 

DO YOU PAY A PRODUCTION BONUS ON YOUR UL/IUL BUSINESS? IF YES, PLEASE DESCRIBE.

DO YOU HAVE ROLLING TARGET

PREMIUMS? (Y/N)

IF YES, FOR HOW MANY YEARS?

B. If your compensation has changed in the last year, please describe the components that changed and the % increase or % decrease.

# Research Report

#### **Pricing**

A. Do you assume a new money or portfolio crediting strategy in pricing UL with secondary guarantee products?

What earned rate is assumed?

How has this rate changed relative to the rate assumed 1 year ago? (% increase or % decrease)

- B. Do you use stochastic modeling to evaluate the investment risk in your UL with secondary guarantee products?
- C. In pricing your UL with secondary guarantee products, at what duration do lapse rates decrease to the ultimate lapse rate?

What ultimate lapse rate do you assume in pricing?

What are the lapse rates if the guarantee is *in-the-money* (i.e., the secondary guarantee is still in effect but the current cash values are not positive)?

What are the lapse rates if the guarantee is not in-the-money?

How have your lapse rates changed relative to the rates assumed one year ago? (% increase or % decrease)

D. Which of the following sensitivities are performed in the pricing process for each product type?

		UL WITH	CASH	CURRENT	
		SECONDARY	ACCUMULATION	ASSUMPTION	
	SENSITIVITY	GUARANTEES	UL	UL	IUL
	INCREASE/DECREASE IN				
	NET INVESTMENT INCOME				
	INCREASE/DECREASE IN LAPSE RATES				
	LAPSE RATES IN THE TAIL				
	INCREASE/DECREASE IN MORTALITY				
	OTHER (PLEASE DESCRIBE)				
E.	What are your mortality assumptions based	on?			
	Company experience				
	Industry tables (specify which tables)				
	Consultant's recommendation				
	Other (please specify)				
F	Is the slope of your pricing mortality assump	tion more simils	r to the 1975-19	80 Select & Ultin	nate
•	Table, the 2001 Valuation Basic Table, or the			oo ooloot a oitii	nato
G	. Do you vary the preferred to standard ratio b	y issue age?			
	Do you vary the preferred to standard ratio b	by duration?			
	Do these rates eventually converge?				
	If yes, at what age?				
	If no, what permanent differential in rates exi	sts?			

Н.	Do you use mortality improvement assumptions in your pricing?
	Is mortality improvement implicit or explicit?  If mortality improvement is applied for a certain number of years, how many years?  If mortality improvement is applied to a certain age, to what age?  Please provide detail on your mortality improvement assumptions (e.g., by age, gender, risk class, etc.)
l.	Have you changed your mortality assumption in pricing in light of 2008 VBT studies?
J.	Is economic capital reflected in pricing?
	Is market consistent economic capital reflected in pricing?
K.	Are any special provisions reflected in pricing for redundant reserves?
	If so, please indicate which provisions are reflected.
	Existing funding solutions  Anticipated long-term funding solutions  No funding solutions in place, but reduced cost assumed due to reduced risks  Other (please describe)
L.	Home Office Expense Levels (Exclude premium taxes and field expenses). Expenses should be reported assuming a \$500,000 policy.
	HOME OFFICE EXPENSE LEVELS PRICING LEVELS ACTUAL LEVELS (FULLY ALLOCATED)
	ACQUISITION (EXCLUDING COMMISSIONS)  \$ PER POLICY % OF PREMIUM - UP TO TARGET % OF PREMIUM - EXCESS PER UNIT OTHER (PLEASE SPECIFY)
	MAINTENANCE
	\$ PER POLICY
	ANNUAL INFLATION %
	% OF PREMIUM
	PER UNIT
	% OF ACCOUNT VALUE
	OTHER (PLEASE SPECIFY)

M. Please indicate how the following expenses are categorized for pricing expense purposes. Allocate first to Acquisition vs. Maintenance and within those categories by per policy/% of premium/per unit/% AV/Other.

HOME OFFICE EXPENSE LEVELS	ACQUISITION	MAINTENANCE
DISTRIBUTION (EXCLUDING COMMISSION)		
MARKETING		
AGENT LICENSING		
COMPLIANCE/LEGAL		
NEW BUSINESS		
UNDERWRITING		
POLICY ADMINISTRATION		
RESERVES/TAXES/CAPITAL		
ACCOUNTING/FINANCIAL		
ACTUARIAL		
IT		

If you are unable to categorize any of the above expenses as directed, please explain any differences.

#### Administration

- A. What administration platform are you currently using to administer your UL products?
- B. How quickly can you implement the following:

A reprice?

A redesign?

A new product?

# **Illustration Testing**

A. If applicable, do you treat the cost of letters of credit as an expense in illustration testing?

If not, do you handle LOC costs in illustration testing in another fashion, or are they ignored?

B. What rate is the illustrated rate for IUL?

How has this rate changed relative to the rate used one year ago? (% increase or % decrease) What are you doing to keep this rate attractive? How are you tracking this rate? How often are you changing this rate?

C. Do you find that illustration actuary requirements create a pricing constraint?

If so, is the constraint more severe for certain product types?

Please list the types of products that give rise to illustration actuary challenges.

What solutions have been employed during product development and pricing to overcome illustration actuary challenges?

D. What is the illustration actuary calendar at your company?

Are assumptions specific to illustration actuary certifications revisited during the timeframe specific to the annual cycle for testing and certification?

If so, please respond to the following questions:

Which assumptions are likely to be re-evaluated?

Are self support and lapse support test re-evaluated in light of emerging information?

Are product or illustration adjustments sometimes necessary prior to the next annual cycle?



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