# Life Insurance Technical Manual

Technical issues surrounding one of the biggest assets owned by successful clients – life insurance.

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Estate Planning Council of Greater Miami March 15, 2012 There are worse things in life than death.

Have you ever spent an evening with an insurance salesman?

Woody Allen

#### n Introduction

- n The industry could use a good P.R. agent
- n Only 12% of agents survive beyond three years
- n Of those, few are technically proficient, most are poorly trained
- n Many offer insurance only as a sideline
- n Very few earn the Chartered Life Underwriter (CLU) designation

#### n For the Non-Insurance Advisor

- n Technical knowledge not sales knowledge
- n Help you speak intelligently to clients
- n Life Insurance is not for everyone
- n Money for future delivery
- n Complicated but not hard to understand
- n Some have an irrational distaste for it
- n Life Insurance is powerful if you know how to use it correctly
- n Primer on the product spectrum, and how the products work

#### n Matching Product to Objective

- n Understand what the client needs and wants
- n The art of matching that with the appropriate product
- n Different objectives can dictate different products

#### n 1978 – 1982 A Turning Point

n New products, where risk was shifted to the policy owner

n Not your father's life insurance

#### n General Concepts

n Most products have some guarantees

- n Regulators require conservative pricing assumptions
- n Policies can be in force 75 100 years
- **n** Beyond the guarantees no one knows the ultimate cost
- **n** Conservative assumptions to assure the benefit can be paid
- **I** If premiums are more than adequate, policy owner receives dividend

The things determine premium:

n Mortality n Expense n Investment

- n Mortality
- n Expense
- n Investment

#### n Mortality

- Cost of claims quantifiable
- Standard mortality Commissioner's Table
- Commissioner's Table vs. Insurer's Table

#### 2001 Commissioners Standard Ordinary Mortality Table

				Deaths per tho	ousand				
Age	Male	Female	Age	Male	Female	Age	Male	Female	
0	0.97	0.48	40	1.65	1.30	80	70.14	43.86	
1	0.56	0.35	41	1.79	1.38	81	78.19	49.11	
2	0.39	0.26	42	1.96	1.48	82	86.54	54.95	
3	0.27	0.20	43	2.15	1.59	83	95.51	60.81	
4	0.21	0.19	44	2.39	1.72	84	105.43	67.27	
5	0.21	0.18	45	2.65	1.87	85	116.57	74.45	
6	0.22	0.18	46	2.90	2.05	86	128.91	80.99	
7	0.22	0.21	47	3.17	2.27	87	142.35	90.79	
8	0.22	0.21	48	3.33	2.50	88	156.73	101.07	
9	0.23	0.21	49	3.52	2.78	89	171.88	112.02	
10	0.23	0.22	50	3.76	3.08	90	187.66	121.92	
11	0.27	0.23	51	4.06	3.41	91	202.44	126.85	
12	0.33	0.27	52	4.47	3.79	92	217.83	136.88	
13	0.39	0.30	53	4.93	4.20	93	234.04	151.64	
14	0.47	0.33	54	5.50	4.63	94	251.14	170.31	
15	0.61	0.35	55	6.17	5.10	95	269.17	193.66	
16	0.74	0.39	56	6.88	5.63	96	285.64	215.66	
17	0.87	0.41	57	7.64	6.19	97	303.18	238.48	
18	0.94	0.43	58	8.27	6.80	98	321.88	242.16	
19	0.98	0.46	59	8.99	7.39	99	341.85	255.23	
20	1.00	0.47	60	9.86	8.01	100	363.19	275.73	

#### 2001 Commissioners Standard Ordinary Mortality Table

				Deaths per tho	ousand				
Age	Male	Female	Age	Male	Female	Age	Male	Female	
21	1.00	0.48	61	10.94	8.68	101	380.08	297.84	
22	1.02	0.50	62	12.25	9.39	102	398.06	322.21	
23	1.03	0.50	63	13.71	10.14	103	417.20	349.06	
24	1.05	0.52	64	15.24	10.96	104	437.56	378.61	
25	1.07	0.54	65	16.85	11.85	105	459.21	410.57	
26	1.12	0.56	66	18.47	12.82	106	482.22	443.33	
27	1.17	0.60	67	20.09	13.89	107	506.69	476.89	
28	1.17	0.63	68	21.85	15.07	108	532.69	510.65	
29	1.15	0.66	69	23.64	16.36	109	560.31	545.81	
30	1.14	0.68	70	25.77	17.81	110	589.64	581.77	
31	1.13	0.73	71	28.15	19.47	111	620.79	616.33	
32	1.13	0.77	72	31.32	21.30	112	653.84	649.85	
33	1.15	0.82	73	34.62	23.30	113	688.94	680.37	
34	1.18	0.88	74	38.08	25.50	114	726.18	723.39	
35	1.21	0.97	75	41.91	27.90	115	765.70	763.41	
36	1.28	1.03	76	46.08	30.53	116	807.61	804.93	
37	1.34	1.11	77	50.92	33.41	117	852.07	850.44	
38	1.44	1.17	78	56.56	36.58	118	899.23	892.44	
39	1.54	1.23	79	63.06	40.05	119	949.22	935.11	
						120	1000,00	1000.00	

# U.S. Deaths per Thousand



### The Population of the U.S. is Aging



- n Mortality
- n Expense
- n Investment

#### n Expense

**n** Companies project expenses to set premiums

- Projected conservatively
- Creates slightly higher premium
- Expense must be projected out decades

#### n Expenses Include:

- Home Office Expense: rent, salaries, legal, accounting, advertising
- Field-Distribution Expense: commissions, sales management, field offices, underwriting

## **Policy Expenses**



- n Mortality
- n Expense
- n Investment

#### **Investment Income**

- Commissioner's interest rate for reserves
- Conservative investments required
- Dividend interest rate (NOT the policy rate of return)

# **Projected Dividends**



#### Dividend Interest Rate

Dividend Interest Rates for Participating Life Insurance Policies Issued by Massachusetts Mutual Life Insurance Company prior to March, 1996



1985

12.20%

The divident interest rate is used to determine the investment component of dividender, It is one menate of vector, and the policy find banks individual and overclosed companion, a marketity component and an expense component. Therefore, audidend interest rates should not be used as the basis for comparing insurers. Envidends are not guaranteed.

Г	Year	Dividend Interest Rate	Year	Dividend Interest Rate
	1980	8.27%	1995	9.00%
	1981	8.27%	1996	8.40%
	1982	9.22%	1997	8.40%
The way companies apply dividend interest	1983	11.60%	1998	8.40%
rates to calculate dividends varies. Some	1984	11.00%	1999	8.40%
companies quote gross rates. Others,	1985	12.20%	2000	8.30%
including MassMutual, quote rates that are	1986	12.20%	2001	8.30%
net of investment expenses only, while yet	1987	12.20%	2002	8.10%
others quote rates that take additional	1988	11.35%	2003	7.90%
items into consideration.	1989	11.15%	2004	7.50%
4	1990	10.50%	2005	7.00%
	1991	10.50%	2006	7.55%
	1992	9.95%	2007	7.55%
	1993	9.45%	2008	7.90%
	1994	9.30%		

Rates starting in 1983 assume an Adjustable Loan Rate.

Policies in this block of business are no longer sold.

#### 2005 7.00%

- n A Risk Shifting Vehicle
- n Term
   n Traditional Permanent
   n Flexible (Universal Life)

#### n A Risk Shifting Vehicle

n Term

# **Annually Renewable Term**



## Level Term



## Level Term to 100



# **Term Rates**

n					
\$200	Principal	\$255	MetLife	\$294	
\$215	United of Omaha	\$262	Lincoln Benefit	\$295	
\$227	Ohio National	\$265	Prudential	\$415	
\$230	Mass Mutual	\$285	Nationwide	\$460	
	\$200 \$215 \$227 \$230	<ul> <li>\$200 Principal</li> <li>\$215 United of Omaha</li> <li>\$227 Ohio National</li> <li>\$230 Mass Mutual</li> </ul>	\$200Principal\$255\$215United of Omaha\$262\$227Ohio National\$265\$230Mass Mutual\$285	\$200Principal\$255MetLife\$215United of Omaha\$262Lincoln Benefit\$227Ohio National\$265Prudential\$230Mass Mutual\$285Nationwide	\$200Principal\$255MetLife\$294\$215United of Omaha\$262Lincoln Benefit\$295\$227Ohio National\$265Prudential\$415\$230Mass Mutual\$285Nationwide\$460

## **1905 NY Legislature**

n Armstrong Committee
 n Term to 100
 n Access to reserves – non-forfeiture values

#### n Cash value confusion

Death Benefit \$600,000 <u>surrender</u> \$300,000 Cash Value \$200,000 <u>-\$100,000</u> \$100,000

- n A Risk Shifting Vehicle
- n Term n Traditional Permanent

## Whole Life



#### **Traditional Whole Life**

#### n Guaranteed Cash Value

- Reserve for payment of death benefit
- Guaranteed cash value = death benefit age 100

#### n Limited Pay Whole Life

n Term-Whole Blends

## Term-Whole Life Blend- \$250k



- n A Risk Shifting Vehicle
- n Term n Traditional Permanent n Flexible (Universal Life)

- n Flexible (Universal Life)
- n Introduced in 1970s
- n Flexible premium
- n Opportunity for growth
- n Minimal guarantees
- n Policy owner assumes the risk

#### **Universal Life**



#### n Flexible (Universal Life)

#### n Secondary guarantees

- For a higher UL premium guaranteed death benefit
- Premium lower than whole life
- Little or no cash value
- Narrow actuarial calculations
- Strict payment monitoring
- Full circle from Armstrong Committee philosophy

#### Variable Life



#### **Indexed Life Insurance**

- Most recent flexible product offering
- Crediting tied to an index of equities
- Definition of the index varies widely
- Guarantees but difficult to quantify
- Promoted as lower ultimate cost

n A Risk Shifting Vehicle

n Term n Traditional Permanent n Flexible (Universal Life)

n Second-To-Die

#### n Second-To-Die

- Same generic product forms
- Insures two lives
- Benefit paid at second death
- Unlimited marital deduction 1981
- Interest, mortality, expense
- Joint mortality table

## **Planning Consideration**

#### n Second-To-Die

- Not always more cost effective
- Consider age differential and time value of money

#### Male 75 - Female 60

#### <u>10 million 2<sup>nd</sup> To Die</u>

M dies age 90 F dies age 90 (15yrs later) **<u>10 million Single Life</u>** 

M dies age 90 \$10,000,000 benefit received 15yrs growth at 4%

\$10,000,000 to beneficiary

\$18,000,000 to beneficiary

- n Term
- n Traditional Permanent
- n Flexible (Universal Life)

# Which Product Is Best???

## **IV. Product Performance**

- n Traditional products:
  - Dividends
  - Uses of dividends
  - Vanishing premium concept

## **IV. Product Performance**

- n Traditional products:
  - Dividends
  - Premiums based on conservative assumptions
  - Dividend paid when premiums are more than adequate
  - Not guaranteed
  - Values are over and above the guarantee
  - Dividends received cannot diminish

### **Use of Dividends**

#### **Common Dividend Options:**

- Cash
- Applied to reduce premium
- Accumulate at interest
- Purchase additional death benefit

## **Compare:** Same Contract with Different Options:

### **Dividends in Cash**



Whole Life Legacy 100 Life Insurance Illustration

Policy: Whole Life Legacy [00 with Premiums Payable to Age 100 Base Policy Face Amount \$250,000 Riders: ABR TIR

Annual Premium: \$5,815.00

#### **Tabular Values**

Dividend Option: Policy dividends paid in Cash. <u>Dividends are not guaranteed</u> and are subject to significant fluctuations over the lifetime of the policy. Changes in dividends will change all Non-Guaranteed values shown in this illustration.

						2	Net'-Guarer	Led Values			
Yea	Age Fait Yea	Contract Pisari ipm Bag, Year	Ginarautes d Casl: Value Fud Yeau	Guarantexd Dest : Bunefit Find Y2a	Dividend Perd in Cash Beg Year	Tas an Distribution Bag Yea	Annual Ne. Outky Reg Yea	Tetal Casl Vrlua Fud Year	Tetal Decth Benefit Enc. Yese	Total PeckUp Insurree Fm. Yea	
34	76	5815	144,900	39:000	6,452	п.	-6.18	140.915	256.718	900,137	
3.7	77	1811	140,785	330,000	6,718	0	-905	14c 74s	756 9e R	3/14,367	
1.	75	58.5	45,205	39.000	6,967	ii.	-1.148	1.52 544	357 735	306 240	
3.2	79	1,811	130,730	330,000	7,305	0	-1.410	1-1 4	412 518	313,015	
	30	5,815	155,585	190000	7,548	п	-1.765	260.1	180	115,607	
31	- X1	5.815	144,000	290,000	7,835	- 0	-2.620	in the second	A16.818	119,200	
44	123	5,815	246,026	390,000	N218		-2,505	174,850	258,822	123,605	
2.4	83	5.815	9,505	29.000	5,528	1)	-3.008	180,088	239,200	125,778	
24	>4	5,815	75,430	39.000	9,390		-3.425	185,160	250 740	136,745	
35	85	5,815	19689	290,000	9,740	0	-3.925	(90,,04)	260,180	231,540	
3,5	26	5,815	14,144	350,000	10,150	n	-4,365	194,830	260,673	184,336	
37	87	5.815	188,200	250,000	10,673	- 0	-4.858	199.365	261.165	136,745	
3.	22	5,415	193/35	350,000	11,165	n	-1,350	303,e30	261,605	130,036	
39	80	5,815	105,624	250,000	,6405	0	-5.790	207.643	262.020	341,145	
40	50	5,815	1.35,000	730,000	1,020	0	-6,205	311,345	70,345	343,000	
167785	5325	D-509-6275	0 0.0553.051	12268.030 - 312	1920,562	03860	160207-04	10165-155-1	1000000-0	2033w80.43	

## **Dividends Reduce Premium**



Whole Life Legacy 100 Life Insurance Illustration

Policy: Whole Life Legacy 100 with Premiums Payable to Age 100 Base Policy Face Amount: \$250,000 Riders: ABR TIR

Annual Premium: \$5,815.00

#### **Tabular Values**

**Dividend Option:** Prior year's policy dividend used to reduce current premium with excess used to purchase Paid-Up Additions. <u>Dividends are not guaranteed</u> and are subject to significant fluctuations over the lifetime of the policy. Changes in dividends will change all Non-Guaranteed values shown in this illustration.

								Guarante of V	alucs		
	Age Find	Contract Parminer	Guerarized Orde Vislae	Guarantood Death Benefit	Nat	Annuel Disident	Cash Malua el Additione	Total Cash Value	Paid-Up Additions	Total Death Dearth	Total Paid-Up
Yan	Yaar	Beg Yaar	Find Year	Hud Yaan	Beg Yaar	Fud Year	and Yau	Find Year	Find Year	Find Year	Hud Yam
70	70	3813	1 134.700		_	6 7 76	1.008	142 113	7 ((7))	238 204	201 824
11	77	5.815	139,785	250.000		7 (33	3 3 58	148 958	4.674	760 489	207.344
78	78	1815	145,308	250.000	-	7,336	4 945	136,068	6.751	762,566	213,056
74	75	5815	150,770	250,000		7.681	6.904	163,439	1200	765,066	718 989
30	80	5/815	135,983	2 50,000	-	8,067	9 <b>,</b> 236	171,074	292 9	62 .34	223,139
4	81	1815	14L100	250,000	-	8,622	12,243	179,158			231,808
31	87	5,815	166,078	250,000		9,774	15,852	187,694	26.181	775,996	238,961
44	84	5815	170,798	250,000	<del>7</del> 3	5,808	20,091	196,703	25.0	281,00:2	246,663
34	84	5,815	175,420	2 50,000		16, 994	24,967	206,202	30.845	786,660	254,743
45	85	5815	175,880	250,000	+	10.5385	36,492	716,187	37.147	2957,969	265, 570
34	8e	1,819	184,148	250,000		11,673	36,758	226,721	44.193	300,008	272,580
37	87	1,811	188,200	250,000	76	17,895	43,796	237,811	52.007	307,822	282,398
35	88	5,815	192,023	250,000		13,067	51,54é	249,386	60.508	316,323	292,747
35	89	5,815	195,623	250,000	<del>.</del>	13,711	50,008	261,455	69.678	325,493	305,617
40	90	5,815	199,000	250,000		14,791	69,075	273,890	79.424	335,239	314,975

## **Dividends Accumulate**



Whole Life Legacy 100 Life Insurance Illustration

Policy: Whole Life Legacy 100 with Premiums Payable to Age 100 Base Policy Face Amount: <u>\$250,000</u> Riders: ABR TIR

Annual Premium: \$5,815.00

#### **Tabular** Values

Dividend Option: Policy dividends left to accumulate at interest. <u>Dividends are not guaranteed</u> and are subject to significant fluctuations over the lifetime of the policy. Changes in dividends will change all Non-Guaranteed values shown in this illustration.

					072		Non	Charactered Ve	luet		
Yer	Age End Year	Contract Premium Bog Year	Guaranteed Cast: Volue End Year	Guaranteec Death Bonefit Enc Year	Annual Divicend End Year	Tax on Distribution Bog Year	Anrual Net Outby A Bog Year	Cash Value of ecurrular any End Year	Loral Cash Value End Year	Fotal Death Borefit End Year	Fetal Pad Op Insurance End Yeur
25	26	23.2	.34.200	250,000	6.7.8	8.2	6,632	100,135	234.e37	350,437	333.225
27	- 27	5.8.5	.35.585	250.000	6.963	5.2	6,727	111.015	250,800	361.015	249.105
25	- 28	2.8.2	.45.303	250.000	7.225	1.6.2	6,527	122.205	267.544	372.237	365.235
27	- 99	5.8.2		250.000	7.5.8		6,934	124.155	284,875	384.155	381.661
20	80	2.8.2	.22.585	250,000	7,835		7,017	146.815	474.	853	3\$4.532
1	8.	2.8.2	.60)	250,000	\$.2.8		7.167	160,122			416.011
32	82	5.8.5	.66.623	250.000	5.523	480	7,295	155.020	241.645	425,020	434.201
.1.1	8.3	5.8.5	.70.795	250,000	9,290	1.6.7	7,432	150.611	361.403	446.611	453,091
24	84	2.8.2	.75.420	250,000	9.740		7,579	207.212	352.033	457.212	472.705
35	85	3.813	75,280	250,000	0.180		7,736	221.853	401.722	474,853	490.065
26	86	2.8.2	.5445	250,000	.0.073	2.089	7,904	243.620	429.967	493.620	514.292
37	87	2.8.2	.35.200	250,000		2.267	3,052	203.555	421.225	213.522	536.426
25	88	2.8.2	.92.1.25	250,000		2,456	8,27.	284.648	476.072	524.648	559.554
39	89	2.8.2	.95.023	250,000	.2.620	2.657	3,172	306.912	202.338	226.912	283.620
49	50	28.2	.96.000	250,000	.2.245	2,805	5,654	330.305	526.309	580,309	(09.611

### Dividends Purchase More Death Benefit



Whole Life Legacy 100 Life Insurance Illustration

Policy: Whole Life Legacy 100 with Premiums Payable to Age 100 Base Policy Face Amount: \$250,000 Riders: ABR TIR

Annual Premium: \$5,815.00

#### **Tabular Values**

Dividend Option: Dividends used to purchase Paid-Up Additions. <u>Dividends are not guaranteed</u> and are subject to significant fluctuations over the lifetime of the policy. Changes in dividends will change all Non-Guaranteed values shown in this illustration.

								teat Valuas		
	72	12		Guaranteed	8 S .	Cash	Tag		T.t.1	Tuel
	Aga	Certma	Generated	LYall	80000	A9.1 < 0	Cash	Paid-U.9	Death	Paid-CD
	Tu:	Prendum	Cash Value	Den, it	Dividenc	Additions	Value	Additions	Denafit	Costrantos.
Acor	Year	Beg Year	Fod Yvor	Fnd Yvor	End Year	Fud Year	Fnd Yenr	EnlYear	End Year	End Year
76	76	6.016	124,290	550.000 L	10.3.15	170 153	201203	179.659	125 659	361.235
27	77	5 215	139.795	250.000	10.079	120,134	273.3.01	125 312	435.018	220 302
28	78	1.815	145,308	2 30,000	11.637	147,846	293,153	201.832	451,832	400.198
74	79	\$ 815	150 720	250.000	17 400	163 037	313 757	218-446	468 446	470 389
30	83	5.815	135.985	230.000	13.207	179,182	335,167	200	0 1 0 <sup>177</sup>	441,125
			0 2 20.0807.2537	CORDINAR ST				288.	049	
51	81	5.815	161.130	250.0000	14.199	196,463	357,563	There ?	·	467.643
32	82	5.815	166.028	250.000	15.272	214,935	380,967	273.642	\$23,642	485,018
11	85	5.815	170.798	250.000	16.317	234,588	405,385	294.099	\$44,000	508,224
34	84	5.815	175.420	250.000	17.378	255,436	430,856	315.567	\$65.567	\$32,287
- 11	85	5.815	179.888	250.000	18,454	277,487	457,507	\$\$8.349	588.049	557,188
36	86	\$.815	184.148	250.000	19,800	300,975	485,123	361.854	511.kS4	583,249
37	87	5.815	188.200	250.000	21.235	325,956	514,156	387.071	657.071	610,557
38	XX	5.815	192.825	250,000	22.412	352,150	\$44,175	413.379	663.379	638,793
59	89	5.815	195.625	250.000	23.574	379,523	575,145	440.757	690.757	667,947
-10	90	5.815	199,000	2 50.000	24.695	407,987	605,987	469.106	719.105	697,971

### **Premium Offset Concept**

n Vanish Concept – sold frequently

Vanish depends on dividendsLower dividends mean more payments

## Current Dividend = 14 payments



Whole Life Legacy 100 Life Insurance Illustration

Policy: Whole Life Legacy 100 with Premiums Payable to Age 100 Base Policy Face Amount: \$250,000 Riders: ABR TIR

Annual Premium: \$5,815.00

#### Supplemental Values

Dividend Option: Dividends used to purchase Paid-Up Additions. <u>Dividends are not guaranteed</u> and are subject to significant fluctuations over the lifetime of the policy. Changes in dividends will change all Non-Guaranteed values shown in this illustration.

					Non-3F.	arantees! Values-				
Y.3u	Age Fud Year	Okchael Premium Reg Year	Amme) Surrencer Heg Vitar	Annual Na Ontiay Reg Year	Annual Dividend End Year	Have Policy Cash Vote Fud Year	Laid Uash Vetic ef Additions End Year	fami Cash Vide End Year	Latal Ban-Ua Additions Find Year	Latr I Desub Henet r End Year
1	51	5.815	0	5.815	0	£	0	6	£	250.000
2	52	5.815		0.815	10	530		5.63	0	250.000
3	53	5.815		5.815	595	5.703	595	6.298	1.545	251.545
4	54	5.815		0.810	790	10.990	1.404	12.394	4.534	25.4.5.43
5	55	5.815	N	5.815	1.015	16.378	2.463	18.841	6.007	256.007
6	56	5.815	я	5.815	1.220	21.953	3.810	25.662	9.010	259.010
7	57	5.815		5.815	1.402	27.420	5.328	32.748	12.228	262.228
8	58	5.815	11	5.815	1.548	33.075	7.035	40.110	15.677	265.677
- 0	50	5.815		5.815	1.651	38,863	8.895	47.758	19.250	260.250
10	60	5.815	н	5.815	1.774	44.778	10.951	55,708	22.679	272.079
п	61	5.815	u	5.815	1.965	50.178	13,210	63.388	26.989	276.989
12	62	5.815	11	5.815	2.196	55,650	15.782	71.412	31,350	281.350
13	63	5.815	11	5.815	2.487	61.103	18.708	79.810	36.158	286.158
14	64	5.815		5,815	2.806	66.583	22.019	88,602	41.458	291.438
15	65	5.815	5,815	-	2.952	22.070	19,584	91.654	35.902	285.907
16	66	5,815	5.815	. = .	3,497	77.573	17.622	03,104	31.497	281.497
12	67	2.815	0.815	-	4.022	8.4.108	16.127	99.2.65	28.116	278.116
18	68	5.815	5.815	-	4,510	88,690	15.078	103.768	25.649	275.649
19	65	5.815	5.815	-	5.012	94.323	14.502	108.824	24.079	274.079
20	70	5.815	5.815	-	5,474	100.023	14.371	114,393	23.298	273.298

## Lower Dividend = 16 Payments



Whole Life Legacy 100 Hypothetical Lower Scale Life Insurance Illustration

Policy: Whole Life Legacy 100 with Premiums Payable to Age 100 Base Policy Face Amount: \$250,000 Riders: ABR TIR

Annual Premium: \$5,815.00

#### Supplemental Values

Dividend Option: Dividends used to purchase Faid-Up Additions. <u>Dividends are not guaranteed</u> and are subject to significant fluctuations over the lifetime of the policy. Changes in dividends will change all Non-Guaranteed values shown in this illustration.

					Non Guarante	ed Lower Scale V	aluzs			
Yesi	Age End Year	Contract Prestman Bog Year	Annool Surrender Beg Year	Annual No. Ontay Beg Yom	Annual Dividend Find Year	Basic Policy Cash Volac End Year	Total Cash Value of Additions End Year	Fonal Crisa Value End Year	Totel Paid Ug Additions End Year	Total Ceath Benefit End Year
1	51	5,815	0	5.815	0	0	0	0	0	250,000
2	57	5,815	0	2.815	0	530	0	230	0	250,000
3	53	2,815	0	5.815	195	5,703	495	6,198	1,285	251,285
4	54	5,815	0	5.815	635	10,990	1,145	12,136	2,882	252,882
5	55	5,815	Ø	5.815	798	16,378	1,980	18,357	4,828	254,828
ė	56	5,815	0	3,815	940	21,853	3,032	24,881	7,170	257,170
7	57	5,815	0	5.815	1.051	27,420	4,177	31,597	9,586	259,584
8	58	5,815	0	5,815	1,125	33,075	5,427	38,502	12,094	262,094
9	59	5,815	-0	5.815	1,154	38,863	6,743	45,605	14,591	264.591
10	60	5,815	â	5,815	1,150	44,778	8,131	52,908	17,095	267,093
	61	5,815	0	5,815	1,292	50,178	9,658	55,836	19,731	269,731
12	62	5,815	0	5,815	1,433	55,630	11,366	66,996	22,578	272.578
13	63	5,815	0	5,815	1,624	61,103	13,309	74,405	25,717	275,717
14	64	5,815	0	5.815	1.834	66,583	15,500	\$2,082	29,169	279.169
15	65	5,815	0	5,815	2,054	72,070	17,963	90,033	32,935	282.935
16	66	5,815	9	5,815	2,681	73,373	21,107	98,079	37,727	287 727
17	67	5,815	5.815		3,125	81,108	18,833	101,940	17,831	282,833
18	68	5,815	5,815	+	1,583	88,690	16,925	105,615	28,791	278,791
19	69	5.815	5.815	1	1,019	94,324	15,401	109.724	25,572	275.572
20	20	5,815	5,815	t	1,410	100,023	14,228	114,250	23,066	273,066

### **IV. Product Performance**

#### n Flexible Products:

- Earnings on investment account can effect the ability to maintain the death benefit
- Even when investment performance is favorable, mortality costs can change
- Vanish point can change dramatically, requiring substantial additional premium
- Policy can unravel quickly
- Must be monitored. Re-run illustrations regularly

### VUL 8% vs. 4%



#### Variable Universal Life III Insurance Illustration

#### Assuming Investment in Separate Account

Prepared for: John Smith

Male, 50, Select Preferred Non-Tobacco

Policy: Variable Universal Life III - Form P2-2008(FL) Death Benefit Option: Level Death Benefit Option (1) Face Amount: \$250,000 Riders: ABR SIR

Planned Premium: \$2,777.77 Premium Frequency: Annual

#### Values shown reflect current premium expense and policy charges, which are not guaranteed

				0% Lives.in	Hypornerical G out liceour (-1.3	1788 375 met)	4.002 Ervestri	6 Hypotherical) teat Return (2.4	Ginas 13( LOI)	8.00% Fypotherical Grass Investment Reference 6.35% net)		
91	Age	Face Amount Bep, Year	Antituel Premium Onthy	Account Value Fud Year	Ne: Succeder Value Faul Year	Death Dene5t End Yes	Account Value End Year	No Surrender Velue Find Year	Death Benefit End Yea	Account Value Fird Y au	Not Sufrencer Value Find Year	Death Berefit Frid Yea
ī	81	350,000	2,778	3	9	9	29,435	32,426	250,000	110,429	110,429	250,000
1	87	250,000	2,778	9	્	- Q	24,692	24,692	250,000	115.542	115.642	250.00
	5.1	250.000	2.576	8	2		8,5%	15.583	250,000	1.11.51.5	20,805	250,000
;	85	250,000	2,778	0	3	ő	1,255	1,255	250,000	120,992	120,943	250,000
	86	250,000	2,778	0	5	0	6	0	0	137,981	135,981	250,000
2	87	250.000	2.778	9	0	0	0	0	V 0/	140,959	140,959	250,000
1	88	250,000	2.578	9	1		3.0		-0	145,765	140,760	250,000
- 80	S.C.	350,000	2,778	0	2	<u>0</u>	9	20	9	150,403	150,403	250.000
5	ər,	259.000	2.775	<b>a</b> (	-2	0	9	. 0	9	154,538	54,838	250,000
1	91	250,000	2.778	0	2	0	2	0	9	159,092	159.092	250.000
- 61	42	258.008	2.775		1			0		165,205	0.3,202	250,000
1	24	7.79.659	2,778	2	3		3		2	171,320	171 220	250,000
÷	95	250,000	2,778	å	័	ă	á	ő	ŏ	175,238	175,238	250,000
ŝ	аń	250.000	2,778	0	0	0	0	0	0	179,106	179,106	250,000
7	97	250,000	2.778	0	0	0	0	0	0	183,111	183,111	250,000
- 30	- 98	359,000	2,778	0	2	- 0	20	.0	0	187,328	187.328	250.000
÷.	96	250.000	2.778	(I )	0	0	0.	0	- 0	191,864	191.864	250.000
3	00	250,000	2,578	9	3		2		0	196,375	106,325	3205.00
I.	01	250.000	0	0	5	0	3	0	0	199,158	199,158	250,000
1	- 02	250,000	_ <b>0</b>	0	1	a			- 0	301, 493,	301,492	3207000
1	103	250,000	0	0	0	0	0	0	0	203.579	203.579	250.000
1	94	250.000	0	9	3	0	2	0	9	205,719	205,719	250,000
3	105	350,000	ŋ	9	9	0	9	9	0	207,315	207.315	2.30.000
è.	06	258,000	0	3	(J)	0	9	30	0	209,880	309,880	250,000
÷.	107	350,000	0	0	2	9	2		9	211,924	211,5/24	250,000
1	108	250.000	U	0	0	0	0	0	0	213,968	213.968	250.000
3	0.00	250,000		3		a			0	116,045	1100042	320,000
2	TH:	250,000	0	0	ಿ	<u></u>	3	:0	. 6	218,212	218,212	250,000

#### 4% Lapse Age 85

#### 8% In force Age 110

### **VUL Guaranteed Mortality**



#### Variable Universal Life III Insurance Illustration

#### Assuming Investment in Separate Account

Prepared for: John Smith

Male, 50, Select Preferred Non-Tobacco

Policy: Variable Universal Life III - Form P2-2008(FL) Death Benefit Option: Level Death Benefit Option (1) Face Amount: \$250,000 Riders: ABR SIR

Planned Premium: \$2,777.77 Premium Frequency: Annual

4%

8%

Lapse

Age 71

Lapse

Age 68

#### Values shown reflect guaranteed premium expense and policy charges.

				026 Livesin	025 Hyperseried Gross Lovesment Recond (-1,7235 net)		4.00% Hypothetical Cruss Envestment Retour (2.21% EO)		Gross 150 dati	8.00% Expanierical Gross Investment Refer. (6.14% net)		
ar	Age	Face Amount Beg, Year	Annia Premium Onthy	Account Value Fud Yea	Ne. Statender Value Faul Year	Death Denefit End Year	Account Value End Yea	No Surrender Velue Fud Year	Death Benefit End Yea	Account Value Find Yiaa	Not Surrencer Value Fud Yeg	Death Benefit End Yea
-	\$1	359,000	2 3 7 8	439		25/10/00	38.4		250 (00)	497		250.00
ì.	\$7	239,009	2,778	587	5	250,000	707	ŭ	250,000	833	é.	250,00
1	5.3	259.009	2.779	1.138	0	250,000	1.343	0	250,000	1,564	0	250.00
ŧ.	54	350,000	2.578	1.235	3	25.1.300	1.895	0	250,000	3.241		250.00
5	55	250.000	2.778	1.898	0	250,000	2,335	0	250,000	2,803	0	250/30
ş.	56	250,000	2,778	2,560	0	250,000	3,452	0	250,000	4.145	0	250.00
7	57	250,000	2.778	3.675	)	250,000	4,442	738	250.000	5,383	1,579	250,00
۹.,	18	250.000	2.578	4,2:+4	1,205	25.1,000	5,289	7,820	(50,000	6,513	4,963	250,00
÷.,	55	350,000	2,778	4,744	3,509	250,300	6,015	4,782	250,000	7,913	6.372	250.00
2	50	2.59.009	2.778	5.044	5.644	250,000	6,593	5,598	250,000	5,599	5,899	250,00
1	61	250,000	2.778	5.175	5.175	250,000	7,025	7,006	250,000	9,504	9,504	250.00
3.	52	250.000	2.778	5.063	5.063	250,000	7,245	7.246	250,000	10,234	10,231	250,00
1	114	280,000	2,578	4,656	4.655	250,000	7,168	6.163	2207000	10,713	10,713	320200
1	54	230.000	2.778	3.9.5	3,913	220,000	6,741	6,741	230.000	10,892	10,892	250.00
1	55	259,000	2,578	2,83,30	02,923	250,000	5,947	85.947	250,000	10,373	10,732	250,00
5	5ri	250.000	2.778	1.3.55	1.355	250,000	4,743	4.743	250,000	10,182	10,182	250,00
7	67	259.000	2.778	0		0	3,103	3.103	250,000	9,203	9,203	250,00
ž.,	- 68	359,000	2,778	0		- 0	997	997	230,000	7,731	7,791	230.00
è.	55	250.000	2.775	0	0	0	0	0	0	5,750	5,750	250.00
2	-76	250,000	2,578	3	3	0	3		0	3,129	3,129	- Digen
1	71	250.000	2.778	0	3	0	3	0	0	0	Ú.	(
			58 933									

#### **Causes of Underfunding**

Lack of understanding by the client
Lack of understanding by the agent
Client over optimism
Agent over optimism
Agent misleading
Client looking for the "easy way"

### V. Insurance Company Issues

n Financial Strength
n Market Behavior
n Too Hungry For Business
n Overexposure to One Line
n Historical Product Performance
n Daily Operations

## **Financial Strength**

#### n Ratings

- Important
- Not the only factor
- Highly rated companies can fall quickly

#### n Lapse Ratios

- Important to performance
- Aggressive assumptions can threaten solvency

#### **Market Behavior**

n Why would an insurance company:

- Project over-optimistically?
- Take bad underwriting risks?
- Overspend to attract new business?

With billions of dollars in investments, years of mortality experience, with regulators, cpas, attorneys, actuaries monitoring constantly – can a company suddenly find a new way to compete in the short run without paying the price in the long run... **Too Hungry For Business** 

n Advisors should be alert to this

n Could be a sign of underlying issues not yet reflected in a company's ratings **Overexposure to One Line** 

n Limited product offerings can add risk

Companies with broader product offerings often weather market pressures better

#### **Historical Performance**

n How did they really do with mortality, interest, expense?

- n Apples to Apples is difficult
- n Same policy can be different over time
- Same company, different policies different results
- n Different companies products vary

## **Daily Operations**

Claims – paid how quickly
 Illustrations – "what ifs" or vanilla only
 Change Options – can they be illustrated
 In Force Ledger – free or do they charge
 Communication – is agent copied
 Service Line – can do or sorry Charlie

## VI. Summary

- n Life Insurance is priced logically no magic
   n No free lunch
- Trade off: premium vs. risk shifting
   Skillfully match product to circumstances
   Good design is more than getting 3 quotes

## VII. Questions & Discussion