

Illustration Actuary Refresher and Recent Developments

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November 2005

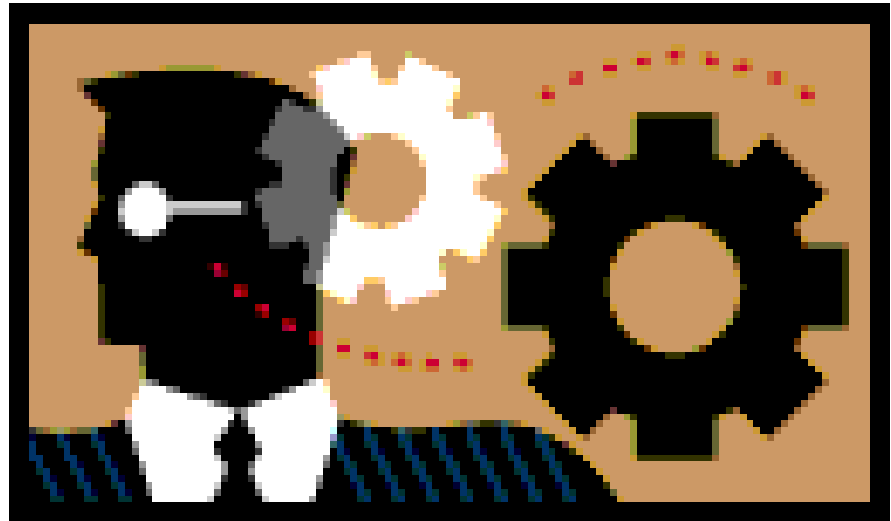


Outline

1. Background
2. Regulatory Framework
 - a. Model Illustration Regulation
 - b. ASOP 24
 - c. Practice Notes
3. GRET (generally recognized expense table)

Background

What was going on in the 80's that triggered a response by regulators?



Background

What was going on in the 80's that triggered a response by regulators?

- Recent historical high interest rates, followed by sharp decline.
- Aggressive illustrations of credited rates.
- Vanish.
- Persistency bonuses supported by early-year lapses.
- Loss leaders that showed great 10-year index, and recovered expenses in later durations.

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Model Illustration Regulation

- Objective is not to mislead consumers with Illustrations, but to protect and educate them.
- Adopted for effective date of January 1, 1997 in several states, most other states shortly thereafter.

Model Illustration Regulation

Scope:

- Only applies to Life Insurance;
- Forms with non-guaranteed elements;
- Illustrated forms;
- Face >\$10,000.

Model Illustration Regulation

Restrictions on language (can't use term "vanish"), and form of Illustrations:

- Need narrative summary including brief policy description and riders;
- Followed by numerical summary;
- Signatures must be on same page as numerical summary;

Model Illustration Regulation

- Tabular detail;
- Need to show both guaranteed and mid-point projections along with current non-guaranteed values at least at durations 5, 10, 20, and age 70.

Sample Illustration

Allen Bailey & Associates, Inc.

A Life Insurance Policy Illustration Summary
 Universal Life - Form UL 1999 - A Flexible Premium Adjustable Life Plan

Designed for:
 Test Customer
 Male, Age 35

Prepared by:
 Joe Agent
 1234 Main St
 Anytown, TX 77777

Underwriting class:
 Non-tobacco

Guaranteed

Based on your first year planned premium outlay of \$770 and subsequent years as illustrated, assuming the guaranteed interest rate and guaranteed charges, all policy benefits would cease at age 72.

Non-Guaranteed

This illustration assumes that the non-guaranteed elements currently illustrated will continue unchanged for all years shown. This is not likely to occur and actual results may be more or less favorable.

Current

Assumes current interest rate of 5.75% and current policy charges will remain in effect. Based on a first year payment of \$770 and subsequent years as illustrated, insurance coverage would remain in force to age 95.

Midpoint

Assumes an interest rate of 4.88% which is midway between the guaranteed and current rate and an average of current and guaranteed charges. Based on a first year outlay of \$770 and subsequent years as illustrated, insurance coverage would cease at age 84.

\$100,000 Universal Life Policy Summary

First Year Planned Premium Outlay: \$770.33

Pay Premiums as Illustrated	Guaranteed 4.00%	Non-Guaranteed Assumptions	
		Midpoint 4.88%	Current 5.75%
Summary Year 5			
Cash Surrender Value	\$1,459	\$1,738	\$2,026
Net Death Benefit	\$100,000	\$100,000	\$100,000
Summary Year 10			
Cash Surrender Value	\$5,583	\$6,500	\$7,479
Net Death Benefit	\$100,000	\$100,000	\$100,000
Summary Year 20			
Cash Surrender Value	\$12,014	\$15,884	\$20,255
Net Death Benefit	\$100,000	\$100,000	\$100,000
Summary Age 70			
Cash Surrender Value	\$5,796	\$28,815	\$54,083
Net Death Benefit	\$100,000	\$100,000	\$100,000

I have received a copy of this illustration and understand that any non-guaranteed elements illustrated are subject to change and could be either higher or lower. The representative has told me they are not guaranteed.

 Applicant

 Date

I certify that this illustration has been presented to the applicant and that I have explained that any non-guaranteed elements illustrated are subject to change. I have made no representations that are inconsistent with the illustration.

 Representative

 Date

Other Requirements

- Signed by both applicant/owner and producer.
- Disclosure of expense basis used.
- Need to provide in force illustrations upon request.
- Certification by responsible Officer of Company (as to other aspects of illustration).
- Annual Certification by Illustration Actuary.

Annual Certification by Illustration Actuary

Actuary certifies that:

- The CPS for business issued in last 5 years has only been reduced for changes in experience;
- Illustrated non-guaranteed elements for new policies are consistent with similar in force policies;
- Illustrated non-guaranteed elements for new and in force policies are consistent with actual NGE's;
- The basis of minimum expenses used in the DCS is disclosed (FAE or GRET).

Annual Certification by Illustration Actuary

Actuary verifies that:

- The illustrated scale does not exceed the DCS;
- No projected improvements;
- Compliance with ASOP24;
- Pass both self-support and lapse-support tests.

Annual Certification by Illustration Actuary

Self-Support Test:

- Must accumulate sufficient cash flow by year 15 (20 years for second-to die policies) to meet or exceed illustrated CSV.

Lapse-Support Test:

- Similar to Self-Support test, but uses a 0% lapse rate after 5 years.

Sample Test – Self-Support

Pol Yr	Premiums	Interest	DB	Surr. Ben	Comm.	Expenses	Reins Cost	Cashflow	Accum CF	CSV
1	5,876	163	77	91	1,363	1,115	-	3,393	3,393	3,763
2	1,427	37	86	263	93	45	-	976	4,548	4,854
3	1,388	29	114	440	92	45	-	727	5,512	5,746
4	1,363	25	144	518	91	45	-	590	6,386	6,539
5	1,352	28	172	368	91	46	-	705	7,375	7,434
6	1,333	29	199	299	90	46	-	728	8,429	8,509
7	1,305	28	226	372	-	46	-	689	9,514	9,522
8	1,284	28	251	304	-	46	-	711	10,676	10,581
9	1,255	22	274	431	-	46	-	526	11,782	11,548
10	1,230	19	300	480	-	46	-	422	12,887	12,480
11	1,209	20	330	386	-	46	-	467	14,090	13,472
12	1,185	17	366	424	-	46	-	366	15,307	14,439
13	1,161	13	411	462	-	46	-	256	16,537	15,381
14	1,160	10	462	502	-	46	-	160	17,791	16,311
15	1,160	6	527	542	-	46	-	51	19,067	17,226
16	1,160	2	604	582	-	46	-	(70)	20,361	18,022
17	1,160	(1)	659	622	-	46	-	(168)	21,691	18,798
18	1,159	(4)	717	662	-	46	-	(269)	23,060	19,549

Sample Test – Lapse-Support

Pol Yr	Premiums	Interest	DB	Surr. Ben	Comm.	Expenses	Reins Cost	Cashflow	Accum CF	CSV
1	5,876	163	77	91	1,363	1,115	-	3,393	3,393	3,763
2	1,427	37	86	263	93	45	-	976	4,548	4,854
3	1,388	29	114	440	92	45	-	727	5,512	5,746
4	1,363	25	144	518	91	45	-	590	6,386	6,539
5	1,352	28	172	368	91	46	-	705	7,375	7,434
6	1,350	39	202	-	91	47	-	1,049	8,667	8,746
7	1,323	40	229	-	-	47	-	1,087	10,076	10,080
8	1,296	39	253	-	-	46	-	1,035	11,545	11,438
9	1,270	37	277	-	-	46	-	983	13,077	12,819
10	1,245	35	304	-	-	46	-	929	14,676	14,224
11	1,220	33	333	-	-	46	-	873	16,345	15,650
12	1,195	31	369	-	-	46	-	810	18,084	17,098
13	1,171	28	414	-	-	46	-	739	19,891	18,565
14	1,170	26	466	-	-	46	-	684	21,784	20,068
15	1,170	24	532	-	-	46	-	616	23,758	21,603
16	1,170	21	610	-	-	46	-	535	25,811	23,038
17	1,170	19	665	-	-	46	-	478	27,964	24,494
18	1,170	17	724	-	-	46	-	417	30,224	25,965

Sample Calculation Formulae

Self-support test is

- $A_t \geq CV_t$ for $t \geq 15$ for single life products
and
- $A_t = A_{t-1} + CF_t + I_t - T_t$ where $A_0 = 0$
- $CF_t = P_t - C_t - E_t - DB_t - S_t - DV_t$
- $I_t = i_t * (A_{t-1} + w * CF_t)$
- $T_t = t_t * [CF_t + I_t + (D_t - D_{t-1}) - (TR_t - TR_{t-1})]$

Lapse-support test is same as self-support test, but uses a lapse rate assumption of 0% for policy years 6+.

Sample Calculation Formulae

where:

- A_t = Accumulated assets at end of year t
- CF_t = Cash flow excluding investment income and federal income taxes in year t
- P_t = Premium income in year t
- C_t = Commission incurred in year t
- E_t = Expenses including premium taxes incurred in year t
- DB_t = Death benefits incurred in year t
- S_t = Surrender value payments incurred in year t
- Dv_t = Policyholder dividends incurred in year t
- i_t = Net investment rate in year t
- t_t = Tax rate in year t
- T_t = Federal income taxes incurred in year t
- D_t = DAC tax balance at end of year t
- TR_t = Tax reserves in force at end of year t
- CV_t = Cash value in force at end of year t
- w = Weighting factor which reflects timing of payment of cash flow components within the year

Expense Assumptions

- Can always use FAE, can use GRET if > marginal.
- Need to use same basis for all forms, products.

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ASOP 24

Illustrated Scale = lesser of DCS or Currently Payable Scale (CPS)

Disciplined Current Scale “DCS” = Non-guaranteed elements & underlying experience factors that pass the required tests:

- Credited Rate
- Premium Scale
- Dividends

Experience Factors

Based on actual, recent, historical Company experience (industry if Company Experience not credible or available); no projected improvement allowed.

- Mortality
- Lapse
- Investment earnings: use same method actually used to allocate investment income (can be portfolio average or new money basis)

More Experience Factors

- Taxes, commissions, other expenses not included in GRET.
- Distribution of sales:
 - should test assumed distribution across classes in aggregate
- Policyholder options must be considered:
 - policy loans,
 - riders,
 - dividend election, etc

Certifications for In Force Illustrations

- CPS has not changed, and experience doesn't warrant changes in DCS that would be significantly less favorable.
- CPS has changed since issue, but only to the extent consistent with changes in experience underlying DCS.
- CPS is less favorable than last certification , but greater than that required by changes in experience.
- ELSE: redo testing using actual paid scales through current date, and project using updated DCS.

Other ASOP 24 Items

- Required communications to Board of Directors and State Insurance Departments.
- Comprehensive documentation supporting all DCS and experience assumptions, testing.

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Practice Notes

- Available with guidance on many questions regarding ASOP and Model Law.
- These do not provide safe harbor, but are examples of interpretations of requirements.
- <http://www.actuary.org/pdf/practnotes/pnasop.pdf>

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More about Expenses

- What is GRET?
- Where did it come from?
- How is it updated?

GRET

(Generally Recognized Expense Table)

- Used as safe harbor if greater than marginal expenses.
- Used predominately by small companies.
- Varies by distribution system (Branch Office, Direct Marketing, Home Service, and Other).

GRET

- Developed/approved for use by NAIC.
- First table was 1998, updated in 2001, 2003, and current proposal for 2006.
- Based on industry averages of Fully Allocated Expense reporting in Annual Statements of sample Companies.
- Count and face amount units come from the Exhibit of Life Insurance.
- Premium comes from Exhibit 1 – apply 6% weight to single premiums.
- Seed factors from LOMA are used, then A/E are applied to determine proposed factors.

GRET

2005 proposal was not adopted – new approaches were used for 2006:

- Concerns were identified with regard to the increase in unit expenses for the Direct Marketing category versus the Other category.
- Revisited categorization of companies to distribution systems to develop 2006 proposal.
- Prior studies only included the 200 largest life companies; the 2006 proposal also derived averages based on a wider sample from the NAIC database (415 companies). This sample included more of the smaller companies.

GRET

2005 proposal was not adopted – new approaches were used for 2006:

- Prior studies were based on only 1 year's experience. In the 2006 proposal, 2 and 3-year averages were also calculated. The recommended table reflects the most recent 2-year average.
- Prior studies used the median expense factor. The 2006 proposal also reviews the unweighted average of all the expense factors.

Comparison of 2003 to 2006 Proposed

	2003 GRET					2006 GRET			
	Acq. per policy	Acq. per unit	Acq. per premium	Maint. per policy		Acq. per policy	Acq. per unit	Acq. per premium	Maint. per policy
Branch Office	\$66	\$1.15	73%	\$33		\$76	\$1.35	84%	\$38
Direct Marketing	\$80	\$1.40	44%	\$40		\$111	\$2.00	61%	\$56
Home Office	\$61	\$1.10	34%	\$31		\$72	\$1.30	40%	\$36
Other	\$85	\$1.50	47%	\$43		\$78	\$1.40	43%	\$39

Factors have increased for all categories except "Other".

When Will It Be Final?

- NAIC Winter Meeting will either approve or delay. If adopted, these factors will become the new GRET standard as of Jan. 1, 2006.
- Impact will vary based on distribution system.