

# DIG Issue B36

## SOP 03-1

# Draft SOP - Internal Replacements

## Discussion of Issues and Current Practice

Darin Zimmerman, FSA, MAAA  
AEGON

Patricia Matson, FSA, MAAA  
Deloitte Consulting LLP

Carol Salomone, FSA, MAAA, CFA  
Allianz Life Insurance Company of North America

June 15, 2004

## Agenda

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### DIG Issue B-36

- Background and History
- Editorializing
- Implementation Options
- Implementation Mechanics
- Numerical Example

### SOP 03-1

### DAC for Internal Replacements

## Background and History

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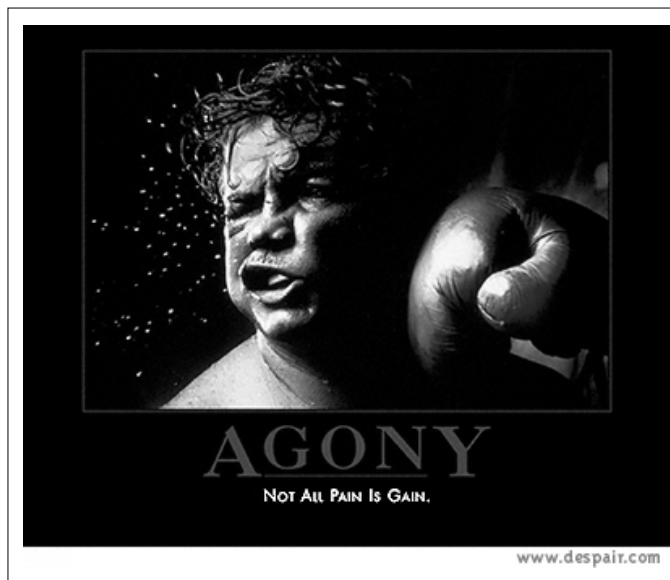
- FAS133 next step after FAS107, FAS115, etc. in transition from book value to fair value
- Understandably, transitions are painful
- SEC "quite surprised" by industry practice
- Accountants persuaded SEC to accept prospective fix without three years of restatements

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## Editorializing

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Not  
All  
Pain  
Is  
Gain



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## Implementation Options

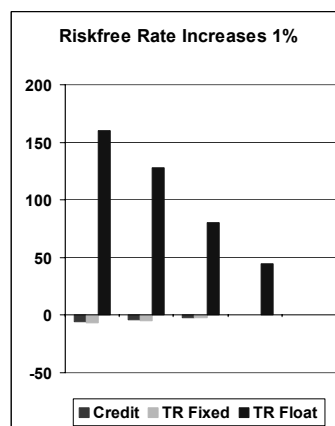
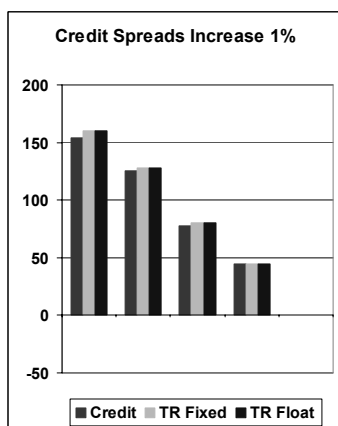
- Individual Fact Pattern is most important determinant in proper accounting treatment
- No mirror requirement unless internal
- Derivative can be credit or total return swap
- Accounting treatment of assets will determine volatility of earnings
- "Do over" and FAS 115 Mulligan elections have expired; need to set things up correctly for future transactions

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## Implementation Option Implications

E&Y example of 5-year SPDA 50% mod-co treaty

Credit = 1%; RFR = 5%; Credited rate = 4.5%; 5-year bond available for sale;



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## Implementation Mechanics

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Credit derivative too hard to value; Pick swap  
Elias Habayeb (Deloitte) showed me this trick

MV Assets	BV Assets
MV Loan	BV Loan

$$\text{Derivative} = (\text{MVA} - \text{BVA}) - (\text{MVL} - \text{BVL})$$

(X→L: MVL=BVL and L→X: BVA=BVL)

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## Implementation Mechanics

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Remember

- For all fixed risk free durations, Float is LIBOR flat This creates a swap with value = zero at inception
- Book Value of Loan is calculated using Swap Curve from inception irrespective of actual principal repayment
- BVA easy to calculate; BVL not terribly difficult, but require actuarial model for principal repayment

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## Implementation Mechanics

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### FIXED for FLOATING

Because

- Floating rate re-prices at least quarterly
- Market value of floating rate loan = par
- Book value of floating rate loan = par
- MVL = BVL

$$\text{Derivative} = (\text{MVA} - \text{BVA}) - (\cancel{\text{MVL}} - \cancel{\text{BVL}})$$

$$\text{Derivative} = \text{MVA} - \text{BVA}$$

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## Implementation Mechanics

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### FLOATING for FIXED

Because

- At every valuation period the BVA equal the outstanding statutory reserve
- At every valuation period the BVL equals the outstanding statutory reserve
- BVA = BVL

$$\text{Derivative} = (\text{MVA} - \cancel{\text{BVA}}) - (\cancel{\text{MVL}} - \cancel{\text{BVL}})$$

$$\text{Derivative} = \text{MVA} - \text{MVL}$$

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## Numerical Example setup

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Five-year SPDA

Lapse & Mortality:

1	2	3	4	5
10%	10%	10%	10%	100%

LIBOR Swap Spots:

0	1	2	3	4	5
2.5%	3.0%	3.5%	4.0%	4.5%	5.0%

Statutory Reserves:

0	1	2	3	4	5
100	93	87	81	75	0

5-yr mtg @ 5.5%:

0	1	2	3	4	5
100	82	63	43	21	0

LIBOR Swap t=1

0	1	2	3	4	5
3.5%	4.0%	4.5%	5.0%	5.5%	6.0%

Mortgage has 122 basis points of credit spread

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## Numerical Example

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### FIXED for FLOATING

Interest Rates jumped by 100 basis points

Credit spreads shrunk from 122 to 100 bps

Statutory Reserve \$100.00 → \$93.15

Book value of Assets \$82.08 + \$11.07 cash

Market value of Assets = \$79.90 + \$11.07

Derivative = (MVA – BVA) – ~~(MVL – BVL)~~

Derivative = 90.97 – 93.15 = (2.18)

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## Numerical Example

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### FLOATING for FIXED

Statutory Reserve \$100.00 → 93.15

Book value of Loan = \$93.15

Book value of Assets \$82.08 + \$11.07 cash

Market value of Assets = \$79.90 + \$11.07

Market value of Loan = \$86.44

Derivative = (MVA - ~~BVA~~) - (MVL - ~~BVL~~)

Derivative = 90.97 - 86.44 = 4.47

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## Agenda

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SOP 03-1

- Topics Addressed by the SOP
- Significance of Risk
- Reserve for Guaranteed Benefits
- Current State
- Liability for Annuity Payments
- Sales Inducements
- Effective Date and Transition

DAC for Internal Replacements

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## Topics Addressed by the SOP

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- I. Separate Account Considerations
- II. Valuation of Liabilities
  - Accrued Account Balance
  - Significance of Mortality and Morbidity Risks
  - Reserve for Guaranteed Benefits
  - Contracts that Provide Annuitization Benefits
- III. Sales Inducements to Contract Holders
- IV. Effective Date and Transition

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## Valuation of Liabilities

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### Accrued Account Balance

- Accrued account balance equals
  - Deposits net of withdrawals
  - Plus credited amounts (contractual and additional)
  - Less fees and charges
- At the rate that would accrue to the balance available in cash, or its equivalent, at the earlier of the reset date or contract maturity
- When multiple account values exist, hold highest account value available in cash or equivalents
- No reduction for surrender charges or MVA

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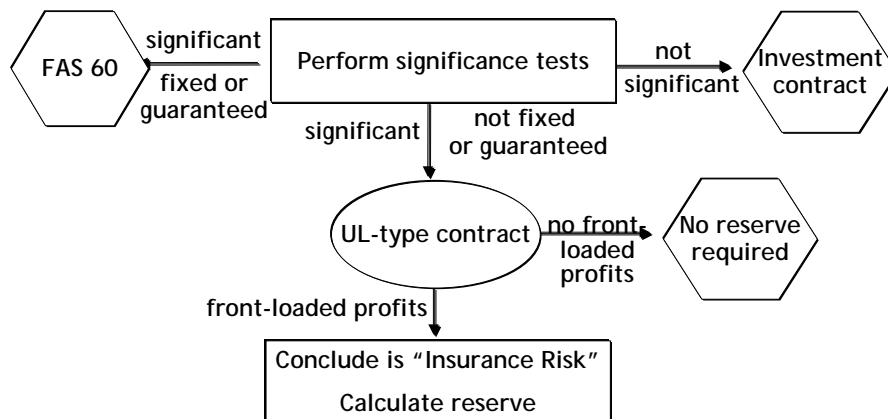
## Determine Significance of Risk

- Contracts to be classified either as “insurance” or “investment” – if investment, no additional liability allowed
- Assessment performed at contract inception, and classification does not change thereafter (except at SOP 03-1 inception)
- For in-force contracts, significance test performed as of initial application, using actual experience to date and expected experience prospectively
- Compare PV of future excess payments to PV of future assessments
- Consider frequency and severity under a full range of assumptions

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## Significance of Risk

*If (a) no capital markets risk or (b) choose to rebut presumption of significant risk, then:*



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## Reserve for Guaranteed Benefits

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- Required if there are “profits followed by losses”
- Rebuttable presumption where benefit varies significantly with capital markets volatility
- The SOP excludes benefits already fair valued under FAS133
- Typical benefits requiring additional GAAP liability:
  - VA GMDB, GMIB, EPB guarantees
  - VUL GMDB, no lapse guarantees
  - UL No lapse guarantees, non-proportional COIs(?)
  - SPDA Favorable annuitization options

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## Reserve for Guaranteed Benefits

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- Accrual of “net” portion of historical assessments less historical benefits paid
- Net portion determined using benefit ratio
- Calculation based on “expected experience” under a “range of scenarios”
- Assumptions should be consistent with DAC

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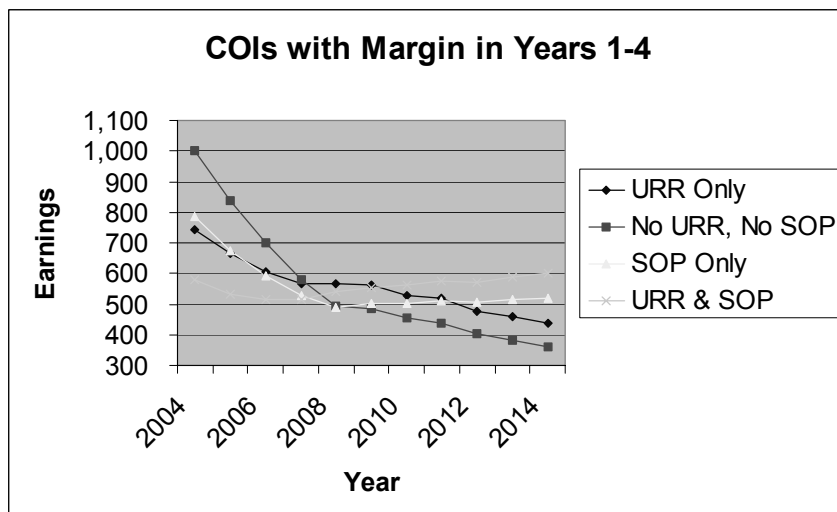
## Reserve for Guar Benefits - Issues

- Profits followed by losses test
  - What are “assessments” (all, explicit, proportion)?
  - What benefits are used (all together, each feature alone)?
  - Level of aggregation?
  - Should the SOP apply to “normal” benefits?
  - Gross or net of reinsurance?
  
- What if already holding URR?
  - Initially some debate that SOP trumps URR (for example, COI charges)
  - Recent FSP indicates URR can stay intact depending on facts and circumstances

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## Reserve for Guar Benefits - Issues

### *Potential interaction of SOP with URR*



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## Reserve for Guar Benefits - Issues

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- Calculation of Reserve

- Need for stochastic assessments?
- Mean of scenarios or some other measure?
- Use mean of benefit ratios or benefit ratio of means?
- Method for allocating historical amounts
- Administrative/valuation system capabilities
- Frequency of unlocking, relationship with DAC unlocking

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## Reserve for Guar Benefits - Issues

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- Level of Aggregation for Reserve

- Key considerations include:
  - Impact of zero floor
  - Differences in benefit ratios by cohort
  - Benefit understatement caused by cell aggregation
  - Administrative issues (particularly for historical data)
  - DAC calculation and loss recognition levels
- Possible approach
  - Benefit projections use cell grouping based on characteristics impacting benefit levels
  - May need upward adjustment for inherent understatement
  - BR and reserve calculation at DAC cohort level

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## Reserve for Guar Benefits - Issues

### *Aggregation example - return of premium GMDB*

	PV	2004	2005	2006	2007
<b>Cohort 1</b>					
AV EOP		45,000	46,000	48,000	42,000
GMDB Benefits	2,381		-	-	3,000
Assessments	7,242		2,600	1,680	3,600
Benefit Ratio	32.88%				
GMDB Reserve		-	923	1,594	-
<b>Cohort 2</b>					
AV EOP		55,000	57,680	59,495	56,036
GMDB Benefits	-		-	-	-
Assessments	4,727		1,720	2,799	485
Benefit Ratio	NA				
GMDB Reserve		-	-	-	-
<b>Aggregate</b>					
AV EOP		100,000	103,680	107,495	98,036
GMDB Benefits	1,559		-	-	1,964
Assessments	11,526		4,000	4,147	4,300
Benefit Ratio	13.53%				
GMDB Reserve		-	584	1,237	-

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## Reserve for Guar Benefits - Issues

- Meaning of "full range of scenarios"
  - Several deterministic may be sufficient for general account products
  - For variable products, enough such that more would not produce a materially different result
- Frequency of stochastic analysis
  - At least annual likely needed
  - Simplified approach may be reasonable for quarterly analysis (consider materiality)
- Opportunity to impress analysts



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## Reserve for Guar Benefits - Issues

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- Capital Markets Assumptions

- Par 25: consider historical and future returns – implies market calibration
- Par 26: consistency of assumptions with DAC EGPs – implies mean return consistent with separate account gross return underlying EGPs (including mean reversion)
- Possible approach: generate returns based on same historical analysis used to set long term gross return
- Companies using mean reversion for DAC may or may not incorporate mean reversion rates



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## Reserve for Guar Benefits - Issues

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- Impact on DAC

- Change in reserve should be included in EGPs
  - Full hit in year of adoption
  - Retro reserve accrual for each year since issue using current year benefit ratio
  - Retro reserve accrual for each year since issue using that year's benefit ratio
- First two equivalent if no zero floor and interest in reserve is included
- Change in reserve will increase DAC balance
- May be offset by adding future benefits in EGPs
- Inconsistency between stochastic reserve components and deterministic EGP components

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## Reserve for Guar Benefits - Issues

### *DAC impact example - first two methods*

DAC		History				Future					
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Account Value EOP	PV	100,000	104,760	109,747	114,971	120,443	126,176	132,182	138,474	145,065	151,971
Deferrals BOP	5,000		5,000	-	-	-	-	-	-	-	-
EGPs	7,400		1,000	1,048	1,097	1,150	1,204	1,262	1,322	1,385	1,451
Amortization Ratio (k)	0.675650479										
DAC Balance EOP		5,000	4,724	4,394	4,005	3,548	3,018	2,407	1,707	908	-
DAC Amortization			676	708	742	777	814	853	893	936	980
<b>GMDB Reserve</b>											
GMDB Benefits	PV	2,000	2,001	2,002	2,003	2,004	2,005	2,006	2,007	2,008	2,009
Assessments	2,712		-	-	-	525	605	715	802	918	1,000
Benefit Ratio	30,747		4,000	4,147	4,300	4,458	4,622	4,792	4,969	5,151	5,341
GMDB Reserve	8.82%										
Increase in Reserve		-	381	807	1,281	1,283	1,221	1,060	817	455	-
			381	426	474	2	(62)	(161)	(244)	(362)	(455)
<b>Revised EGPs</b>											
Method 1	0.68833299		1,000	1,048	1,097	-	1,266	1,422	1,566	1,747	1,905
Method 2	0.71294479		619	622	623	1,147	1,266	1,422	1,566	1,747	1,905
<b>Revised DAC Balance</b>											
Method 1		5,000	4,712	4,368	3,961	4,278	3,749	3,070	2,238	1,214	-
Method 2		5,000	4,959	4,912	4,861	4,431	3,883	3,179	2,318	1,258	-

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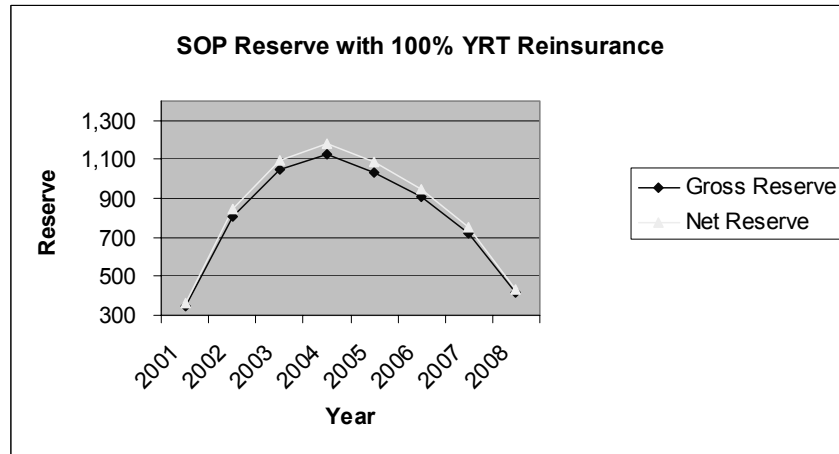
## Treatment of Reinsurance

- AICPA proposal is to include reinsurance premiums as a benefit cost
- Therefore BR numerator = retained claims plus reinsurance premiums
- Denominator still total assessments
- 100% reinsurance will not eliminate reserves unless reinsurance premiums are proportional to assessments
- Actual industry practice varies within industry

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## Reserve for Guar Benefits - Issues

*Reinsurance example - AICPA proposed method*



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## Current State

- AcSEC Expert Panel meeting to discuss issues
  - Submitted letter to FASB regarding URR issue
  - Plan to issue practice guide
- ACLI, individual companies submitted opinion letters to AcSEC, FASB
- ACLI requested delayed implementation
- FASB issued FSP on URR issue, will allow Q2 revisions to be a change in accounting principle
- Company disclosures recognize uncertainty of approach taken

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## Liability for Annuitizations

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- Potential benefits that are payable only upon annuitization, and are not valued under FAS 133
  - Establish additional liability if PV of expected annuitization payments > expected account balance at annuitization date
  - Additional liability similar to retrospective accumulation liability for “Contracts with Death or Other Insurance Benefits”
    - Benefit Ratio is slightly different
- Excess payments equal PV of annuity payments (plus related expenses) based on expected annuitization rate less PV of AV at annuitization date

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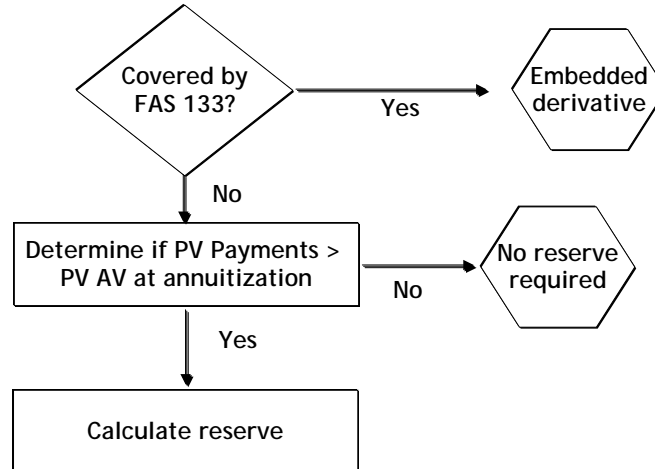
## Liability for Annuitizations

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- The expected annuitization election rate is one of the assumptions that needs to be estimated
- Additional liability never less than zero
- Assumptions used should be consistent with those used in EGPs
- Unlocking comparable to DAC
  - Estimates evaluated regularly, updated as warranted
  - Impact of changes to the liability reported as a charge or credit to benefit expense
- Changes in liability flow through DAC EGPs

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## Liability for Annuitizations



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## Sales Inducements



*Insurer must demonstrate that amounts are:*

### Criteria for Deferral

- Incremental to amounts credited on similar contracts w/o inducements
- Higher than the contract's ongoing crediting rates for periods beyond the inducement
- Explicitly identified in contract

*If met, defer and amortize consistent with DAC*

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## Sales Inducements

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- Includes day-one bonus, persistency bonus, enhanced crediting rate bonus, DCA (if clearly 'incremental')
- Should be included in liability over period for which policyholder must stay in force to be eligible
- If meet the criteria, defer and amortize using the same methodology and assumptions used to amortize DAC
  - Book as an asset, but separate from DAC ("Deferred Sales Inducements")
  - Amortization is to be recognized as a component of benefit expense

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## Effective Date and Transition

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- Effective Date
  - Effective for fiscal years beginning after December 15, 2003
  - Cannot be applied retroactively; report cumulative effects as a change in accounting principle

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## Agenda

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SOP 03-1

### DAC for Internal Replacements

- Definition of Internal Replacement
- Criteria for "Substantially Unchanged"
- Accounting Treatment
  - Substantially Changed
  - Substantially Unchanged
- Other Issues
- Current Status

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## Definition of Internal Replacement

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- Modification in benefit or features by
  - Amendment
  - Rider
  - Exchange of existing contract for new contract
  - Election of benefit feature within existing contract
- Legal form does not determine accounting treatment

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## Criteria for “Substantially Unchanged”

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- Insured event has not changed
- Investment return rights not changed between insurer and insured
- No extra premium, deposit or charge
- No decrease in account value or surrender value
- No change to participation or dividend features
- No change in amortization method or revenue classification

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## Accounting Treatment

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- Substantially changed
  - Treat as lapsed or surrendered
  - Extinguish existing balances
- Substantially unchanged
  - Treat as continuation of the replaced contract
  - FAS 97/120 products: EGP's are treated as revision of future EGP's of original contract
  - FAS 91 products: replacement contract represents revisions to cash flows
  - FAS 60 products: use “prospective revision” similar to indeterminate premium life insurance

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## Other Issues

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- Internal replacement costs
  - Evaluate under FAS 60 and FAS 97 for deferral
  - For substantially unchanged, treat as if in original contract
- Internal replacement assessments
  - Also need to be evaluated under applicable accounting literature
- Recoverability
  - No change for FAS 60 products

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## Other Issues

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- Disclosures
  - Notes to financial statements must describe accounting policy applied
- Transition
  - Applied prospectively when adopted
  - No restatement permitted
  - Unamortized DAC not adjusted to amounts that would have been reported under this SOP

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## Current Status

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- Expect revised draft SOP 3rd qtr 2004
- Items under review
  - Change to criteria for “substantially changed”
  - Costs incurred for substantially unchanged should be expensed
  - Sales inducements for substantially unchanged should not be accounted for as at inception
- May or may not be re-exposed for comments
- Target effective date December, 2005

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