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Traditional Products – Under GAAP – Part I

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Traditional Products under GAAP

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Agenda

- Overview of Traditional Products Under ASC Topic 944 (FAS 60)
- Benefit Reserves
- Deferred Policy Acquisition Costs
- Assumptions
- Earnings Patterns
- Practical Issues

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Overview of Traditional Products Under ASC Topic 944 (FAS 60)

- Issued in 1982
- Prescribed accounting rules for traditional insurance and annuity contracts issued by stock life insurance companies
- No special guidance for “new” products being developed at that time, such as universal life, deferred annuities
- Two types of contracts
  - Long-duration
  - Short-duration

Overview of Traditional Products Under ASC Topic 944 (FAS 60) Long-duration vs. Short-duration Contracts

Long-duration

- The contract provides insurance protection over an extended period and generally is not subject to unilateral changes by the insurer
- Long-duration contracts include contracts, such as traditional nonparticipating whole life, guaranteed renewable term life, endowment, annuity contracts in payment status, individual disability income, long term care, and title insurance contracts

Short-duration

- All insurance contracts that are not long-duration contracts are considered short-duration contracts
- The contract provides insurance protection for a fixed period of short duration (usually one year or less) and allows the insurer to cancel or adjust provisions at the end of any contract period
- Short-duration contracts include most P&C contracts, credit life and health contracts, and optionally renewable A&H contracts

Overview of Traditional Products Under ASC Topic 944 (FAS 60) Long-duration vs. Short-duration Contracts (continued)

Long-duration

- Premiums from long-duration contracts are recognized as revenue when due from policyholders.
- The present value of estimated future policy benefits to be paid to or on behalf of policyholders less the present value of estimated future net premiums to be collected from policyholders are accrued when premium revenue is recognized.
- Those estimates are based on assumptions, such as estimates of expected investment yields, mortality, morbidity, terminations, and expenses, applicable at the time the insurance contracts are made.
- Claim costs are recognized when insured events occur.

Short-duration

- Premiums from short-duration contracts ordinarily are recognized as revenue over the period of the contract in proportion to the amount of insurance protection provided.
- Claim costs, including estimates of costs for claims relating to insured events that have occurred but have not been reported to the insurer, are recognized when insured events occur.

Benefit Reserves

All material policy-related obligations are reserved for:

- Death benefits
- Health benefits
- Surrender benefits
- Endowments
- Policy-related maintenance expenses
- Policyholder dividends (for stock companies)

Benefit Reserves (continued)

Benefit Net Premium

Benefit Net Premium = The portion of gross premiums required to provide for all benefits and maintenance expenses

	Year 1	Year 5
Gross Premium	1,000	650

PV Benefits & Maintenance Expenses/PV Premiums (at issue)

= 4,847 / 6,606 = 73.4%

x Gross Premium = Net Premium	734	477

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Benefit Reserves (continued)

Prospective View

	Year 1	Year 5
PV of benefits & maintenance expenses	4,777	4,120
– PV of net premiums	(4,360)	(2,980)
= Benefit Reserve	417	1,140

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Benefit Reserves (continued)

Retrospective View

	Year 1	Year 5
Reserve B.O.Y.	0	1,065
+ Benefit Net Premium	734	477
– Maintenance Expenses	(100)	(65)
+ Interest	38	89
– Expected Benefits	(255)	(426)
= Reserve E.O.Y.	417	1,140

Deferred Policy Acquisition Costs (DPAC or DAC)

- Costs that vary with and are primarily related to the acquisition of insurance contracts (acquisition costs) are capitalized and charged to expense in proportion to premium revenue recognized
- The balance sheet asset labeled DAC represents the unamortized balance of deferrable acquisition expenses

DAC Amortization Rate

DAC Amortization Rate = The percentage of gross premiums (calculated at issue) required to provide for deferred policy acquisition expenses

PV of Deferrable Expenses	1,300
PV of Gross Premiums	6,606
Amortization Rate	19.7%

DAC Amortization

DAC Amortization = The portion of gross premiums required to provide for deferrable acquisition expenses

	Year 1	Year 5
DAC Amortization Rate	19.7%	19.7%
x Gross Premium	1,000	650
= DAC Amortization	197	128

Retrospective View of DAC

DAC Rollforward

	Year 1	Year 5
Beginning DAC	0	882
+ Deferrable expense	1,300	0
– DAC amortization	(197)	(128)
+ Interest accrual	66	45
= Ending DAC	1,169	799

Prospective View of DAC

Prospective View

	Year 1	Year 5
PV expense charges	1,169	799
– PV deferrable expenses	0	0
= DAC	1,169	799

Assumptions for Reserves and DAC

- Assumptions needed for:
  - Investment earnings
  - Mortality and morbidity
  - Termination
  - Deferrable and maintenance expenses
  - Policyholder dividends
- Assumptions must be consistent with experience at the time policies are issued
- Assumptions must contain a provision for adverse deviation (PAD)
- Assumptions must be “locked-in” at issue

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General Guidance for PADs

- Investment earnings
  - Best estimate rate less small margin (.25% to .50% common in today’s environment)
  - Conservative ultimate rate
- Mortality/morbidity
  - 5% to 10% PAD is common
- Lapse
  - Most often, there is none (except for lapse supported products)
- Total PADs must not cause net premium to be larger than gross premium

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Earnings Pattern

Expected pretax income emerges as:

Level % of gross premium

+ "Release from risk" (e.g., earned interest in excess of GAAP reserve interest)

– Nondeferrable acquisition and overhead expenses

+ Investment income on invested assets backing GAAP equity

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Earnings Pattern (continued)

Example (no PAD)

	Year 1	Year 5
GAAP Book Profit	(53)	48
+Nondeferrable expenses, overhead	120	0
+ Inv inc on above item	7	0
= Adjusted Book Profit	74	48
Adj Book Profit / Gross Prem	7.4%	7.4%

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Earnings Pattern (continued)

Example

	Percent of Gross Premium
Gross Premium	100.0%
- Benefits & maintenance expenses	(73.4)
- Charge for deferrable expenses	(19.7)
= Preliminary profit	6.9%
+ Investment income on prelim profit	0.5
= Adjusted Book Profit	7.4%

DAC Calculation Methods

- Factors
  - Apply actuarially determined factor to each unit of in force at valuation date
- Worksheet
  - Calculate DAC balances for blocks of insurance contracts by issue year
  - Adjust for total termination experience different from assumed

Factor Method for DAC Calculation

- Compatible with benefit reserve factor method
- Have to be careful that factors defer correct amounts

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Static Worksheet Method – Example (i=0%)

Yr	Def Exp	Premium	DAC
1	1,000	1,000	750
2	0	900	525
3	0	800	325
4	0	700	150
5	0	600	0
PV	1,000	4,000	(k = 25%)

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Dynamic Worksheet Method – Example

Actual Premium In Force EOY 1 = 850

Expected Premium EOY 1 = 900

DAC = (850 / 900) (750) = 708

Worksheet Method for DAC Calculation

- Based on estimates of future premiums as of issue date
- Based on actual deferrable expenses
- Simple to maintain and understand
- Introduces need to monitor and adjust regularly for lapse experience

How to Understand Reserve Movement

- Reserve per unit by issue year by major product
- GAAP reserve / Stat reserve by issue year and/or major product

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How to Understand the DAC Movement

DAC prior year

+ New deferrals

– Amortization

+ Interest

= DAC current year

Trend amortization, interest over average DAC balance

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Recoverability Testing

- Testing is performed on current year's issues
- Is the block of business profitable enough to recover deferrable expenses?
- Deferrable costs are limited by
  - PV of premiums less PV of benefits and maintenance expenses
- Nonrecoverable costs may not be deferred, even if product eventually becomes more profitable

Loss Recognition Testing

- Evaluates the adequacy of the net GAAP liability after issue, encompassing both a potential write-off of DAC or a potential increase to the benefit reserves
- Basic principle: probable future losses must be anticipated – PV future GAAP profits may not be negative
- Need to decide on what defines a block of business to be tested; multiple years' issues, products, etc. can be aggregated

Loss Recognition and Recoverability – Assumptions

- Best estimate assumptions w/o PADs
- Do not include overhead expenses
- Once in loss recognition, these new best estimate assumptions are locked in

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