



SOCIETY OF ACTUARIES

**U.S. GAAP & IFRS: Today and Tomorrow**  
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**New York**

**GAAP Accounting Topics**

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## Topics

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- ▶ Summary financial statements
- ▶ Income statement and balance sheet presentation
- ▶ Investments
- ▶ Reinsurance
- ▶ Emerging areas/Current events

## Condensed US GAAP Balance Sheet December 31, 2010

### Assets

Debt securities, at fair value (cost 16.8)	\$ 15.2
Equity securities, at fair value (cost 9.1)	8.9
Other investments	<u>5.7</u>
Total investments	29.8
Cash	4.9
Deferred acquisition costs (DAC)	1.6
Amounts recoverable from reinsurers	2.4
Separate account assets	<u>38.5</u>
<b>Total</b>	<b><u>\$ 77.2</u></b>

## Condensed US GAAP Balance Sheet

### Liabilities

Future policyholder benefits	\$ 13.6
Policyholder account balances	<u>20.1</u>
Total insurance & investment contract liabilities	33.7
Separate account liabilities	<u>38.5</u>
<b>Total</b>	<b><u>72.2</u></b>

### Equity

Common stock	1.0
Retained earnings	3.5
Other comprehensive income	<u>0.5</u>
<b>Total</b>	<b><u>\$ 5.0</u></b>

## Condensed GAAP Income Statement

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### Revenue

Insurance premiums	1.1
Policy charges and fees	1.0
Net investment income	3.0
Realized gain (losses)	<u>(0.2)</u>
<b>Total</b>	<b><u>4.9</u></b>

### Benefits and Expenses

Policyholder benefits and change in reserves	2.2
Expenses (other than deferred acquisition costs)	1.6
Amortization of DAC	<u>0.2</u>
<b>Total</b>	<b><u>4.0</u></b>
Income before taxes	0.9
Tax expenses	<u>0.3</u>
<b>Net Income</b>	<b><u>0.6</u></b>

## Example

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### Assumptions:

Initial premium	\$100
Cost of Insurance charges	\$5 at end of period
Investment yield	10%
Crediting rate	8%

No benefits paid or expenses incurred

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**Accounting Entries –  
Short-duration and traditional long-duration (FAS 60\*)  
Debit/(Credit)**

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**To record premiums received:**

Cash	100
Premiums (revenue)	(100)

**To record investment income:**

Cash	10
Investment income (revenue)	(10)

**To record reserves:**

Change in reserves (expense)	103 <sup>A</sup>
Future Policy Benefits	(103)

<sup>A</sup> (100\*1.08)-\$5 COI

\* Codified in ASC 944, *Financial Services - Insurance*

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**Accounting Entries  
Universal life-type and certain long-duration (FAS 97\*)  
Debit/(Credit)**

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**To record “premium”:**

Cash	100
Policyholder account balances	(100)

**To record investment income:**

Cash	10
Investment income	(10)

**To record reserves:**

Interest credited (expense)	8
Policy charges and fees (income)	(5)
Policyholder account balances (net of 8-5)	(3)

\* Codified in ASC 944, *Financial Services - Insurance*

## Summary Income Statement

FAS 60*		FAS 97*	
<b>Revenue</b>		<b>Revenue</b>	
Premiums	100	Policy fees/charges	5
Investment income	10	Investment income	10
<u>Expense</u>		<u>Expense</u>	
Policyholder benefits	103	Interest credited	8
<b>Net Income</b>	<u>7</u>	<b>Net income</b>	<u>7</u>

\* Codified in ASC 944, *Financial Services - Insurance*

## Summary Balance Sheet (End of year - Assume no beginning balances)

FAS 60*		FAS 97*	
<b>Assets</b>		<b>Assets</b>	
Cash	110	Cash	110
<b>Liabilities</b>		<b>Liabilities</b>	
Future policyholder benefits	103	Policyholder account balances	103
<b>Equity</b>	<u>7</u>	<b>Equity</b>	<u>7</u>

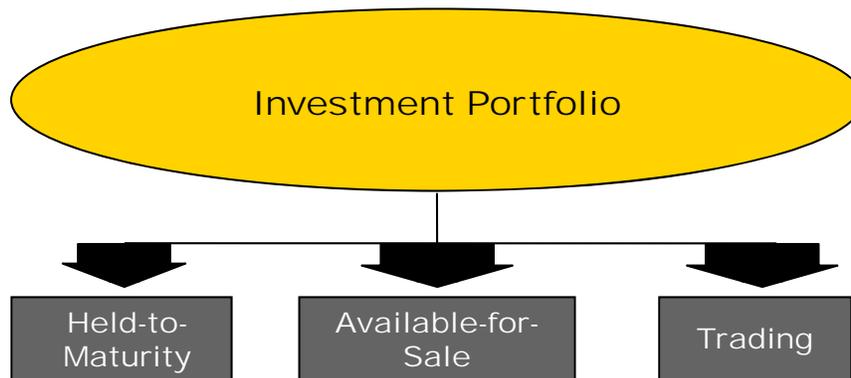
\* Codified in ASC 944, *Financial Services - Insurance*

## Summary Financial Statements

	FAS 60*	FAS 97*
Income statement		
Premiums	X	
Policy charges and fees		X
Investment income	X	X
Benefit expense	X	
Interest credited		X
Balance sheet		
Cash	X	X
DAC	X	X
Reserve for future policy benefits	X	
Policyholder account balances		X

\* Codified in ASC 944, *Financial Services - Insurance*

## FAS 115\* - Accounting for Certain Investments in Debt and Equity Securities



\* Codified in ASC 320, *Investments – Debt and Equity Securities*

## Summary of debt and equity securities

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Classification	Carrying Amount	Treatment of Change in Value
Held to Maturity	Amortized Cost	N/A *
Trading	Fair value	Income
Available for Sale	Fair value	Unrealized: Equity* Realized: Income

\* Credit related impairments must be recognized in the income statement as a charge/loss.

## Example

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Assume

- ▶ Book value at both beginning and end of year= \$100
- ▶ Coupon = 8%
- ▶ Market value BOY = \$102
- ▶ Market value EOY = \$95

## Example (continued)

	HTM	AFS	Trading
BOY Investment	100	102	102
EOY Investment	100	95	95
Change	0	(7)	(7)
Investment income- coupon	8	8	8
Net income	8	8	1 (8-7)
Equity change	8	1	1

## FAS 115\* Securities Acquisition Cost Adjustments (Shadow DAC)

**Concept:** Must offset equity changes caused by unrealized gains/losses by implied DAC effects

- ▶ Assume unrealized items realized
- ▶ Calculate effect on DAC
- ▶ Record as offset to unrealized gain/loss

Affects DAC driven by EGPs & EGMs only

*(Note that FAS 60\*\* premium deficiency reserves also can be impacted by unrealized gains/losses)*

\* Codified in ASC 320, *Investments – Debt and Equity Securities*

\*\* Codified in ASC 944, *Financial Services – Insurance*

## Shadow DAC

(From Prior Example)

Market value- Beginning of year	102	
Market value- End of year	<u>95</u>	
Change in unrealized gain	7	
K Factor =	60%	
Dr. Other Comprehensive Income (Equity)	7	
Cr. Investments		7
Dr. DAC (7*60%)	4.2	
Cr. Other Comprehensive Income (Equity)		(4.2)

## Mortgage-Backed/Asset-Backed Securities

- ▶ Beneficial interests in securitized financial assets (formerly referred to as EITF 99-20\* securities):
  - ▶ Rights to receive all or portion of specified cash inflows
    - ▶ Senior or subordinated shares of interest, principal or other
    - ▶ Premiums due to guarantors
    - ▶ Commercial Paper obligations
    - ▶ Residual interests
  - ▶ Prospective approach
    - ▶ Recalculate effective yield (IRR) each period
    - ▶ IRR equates estimated future cash flows with amortized cost
    - ▶ If there has been an adverse change in estimated cash flows, an OTTI has occurred and the amount should be written down to fair value through income

\* Codified in ASC 325-40, *Investments – Other – Beneficial Interests in Securitized Financial Assets*

## Mortgage-Backed/Asset-Backed Securities

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- ▶ Non-EITF 99-20 securities  
(Formerly referred to as FAS 91\* transactions)
  - ▶ Retrospective approach
    - ▶ Recalculate effective yield (IRR) each period
    - ▶ IRR equates actual and estimated future cash flows with original cost
    - ▶ Record current period “catch up” adjustment

\* Codified in ASC 310-20, *Receivables – Nonrefundable Fees and Other Costs*

## Commercial Mortgages and Real Estate

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### Carrying value

- ▶ Real estate & mortgage loans
  - ▶ Held for investment: cost less accumulated depreciation
  - ▶ Held for sale: Lower of depreciated cost or fair value (less selling expenses)
- ▶ Mortgage loans: Acquired loans acquisition cost (fair value at acquisition date) less unamortized premium/discount

### Impaired

- ▶ Real estate
  - Held for investment: impaired when CV is greater than projected undiscounted cash flows
  - ▶ Held for sale: valuation allowance
- ▶ Mortgage loans:
  - Impaired when it is probable that a creditor will be unable to collect all amounts due according to the contractual terms
  - Consider valuation of collateral

## Derivatives\*

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- ▶ All derivatives recorded on the balance sheet at fair value
- ▶ Hedge accounting available if requirements met
- ▶ If a cash flow hedge-record change in value in equity
- ▶ If a fair value hedge-record hedged item change in value in income
- ▶ If not hedge accounting-change in fair value recognized in earnings

\* Codified in ASC 815, *Derivatives and Hedging Activities*

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## Income Taxes\*

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- ▶ Deferred tax liability computed by applying tax rate to temporary differences between GAAP and tax balance sheet
- ▶ Deferred tax asset must be recoverable to avoid a valuation allowance

\* Codified in ASC 740, *Income Taxes*

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## Examples of Temporary Differences

- ▶ Investment valuation reserves
- ▶ Capital leases
- ▶ Deferred compensation
- ▶ Intangible assets
- ▶ DAC
- ▶ Depreciation
- ▶ Policy reserves
- ▶ Pension plan costs
- ▶ Other post retirement benefits

## Income Taxes - Example

	GAAP	Tax	GAAP - Tax
DAC	100	50	50
Reserves	(800)	(780)	(20)
Net	(700)	(730)	30

$$\text{DTL} = 30 * 35\% = 10.5$$

## Reinsurance\*

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- ▶ Gross up balance sheet for recoverable - don't net with reserves
- ▶ Defer income recognition on indemnity reinsurance sale transactions (earnings process not complete)
- ▶ Financial reinsurance
  - Income statement impact = risk charges collected

\* Codified in the reinsurance contracts subsections of ASC 944, *Financial Services – Insurance*

## Emerging Areas/Current Events

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- ▶ Definition of deferred acquisition costs
- ▶ IFRS convergence
  - ▶ Various standards
  - ▶ IASB and FASB project on insurance contracts