

EXAM 6 – UNITED STATES, FALL 2012

29. (3 points)

Using the following information for an insurance company (all figures are in millions of dollars):

Five Year Historical Data – One Year Loss Development
Line 73: Development in estimated losses and loss expenses incurred prior to current year

2011	2010	2009	2008	2007	2006
5	3	2	1	(5)	4

Company's Year-End Policyholders' Surplus

2011	2010	2009	2008	2007	2006
30	35	41	38	35	30

The values below are obtained from the opining actuary's analysis as of December 31, 2011 and from the company's December 31, 2011, Annual Statement:

	Actuary's Gross Estimate	Actuary's Net Estimate	Company's Gross Carried	Company's Net Carried
Loss Reserves	100	40	95	40
DCC Reserves	50	20	50	18
A&O Reserves	10	10	8	8
Unearned Premium Reserves for Long Duration Contracts	2	1	3	2

a. (1.5 points)

Construct the table of reserve amounts needed for this Actuarial Opinion Summary.

b. (1.5 points)

Determine whether the opining actuary is required to include an explicit description of the underlying causes of adverse reserve development in this Actuarial Opinion Summary.

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29) Sample Answer

Part A

Answer 1

	Gross	Net	
Actuary selected	162	71	
Company selected	156	68	
Company - Actuary #	(6)	(3)	

Answer 2

	Net			Gross		
	Low	best	high	low	best	high
Actuary best estimate	71			162		
Company carried value		68			156	
Differences		(3)			(6)	

Part B

Answer 1

Yes. Adverse development has been greater than 5% of PHS in the last 3 out of 5 years. The opening actuary must include description of causes.

2011 $5 > .05 (35) = 1.75$

2010 $3 > .05 (41) = 2.05$

2009 $2 > .05 (33) = 1.9$

2008 $1 > .05 (35) = 1.75$ x

2007 $-5 > 30 (.05) = 1.5$ x

As you can see, the actuary MUST disclose description of causes.

Answer 2

The test is whether 1 year reserve development to PHS $> 5\%$

This occurs in 2011 ($5/35 = 14\%$), 2010 ($3/41 = 7\%$), 2009 ($2/38 = 5\%$)

Since it occurs in 3 or more out of the last 5, the actuary must discuss the causes.

Examiner's Report

The four common errors for Part A were:

- Not showing summary numbers (i.e. copying the table onto the page without computing totals)
- Forgetting to include the UEPR in the totals shown
- Showing only net or gross, as opposed to both set of numbers
- Not showing a difference between the actuary's estimate and the company's carried reserves.

The common errors for Part B were:

- Not demonstrating knowledge that ratios must be calculated for 5 years

- Not understanding the development is the current year (2007 through 2011) and the surplus is the prior year (2006 through 2010)
- Not demonstrating knowledge that the pass/fail criterion for each test is development in excess of 5% of surplus.