

EXAM 6 – UNITED STATES, SPRING 2016

18. (4.75 points)

The following excerpt is from a monoline insurance company's 2012 Annual Statement:

	2012	2011
Direct Written Premiums	7,000	
Direct Unearned Premiums as of year-end	5,000	2,000
Direct Loss+LAE Paid	2,500	
Direct Loss+LAE Unpaid as of year-end	4,500	3,500
Other Underwriting Expenses Paid	900	
Other Underwriting Expenses Unpaid as of year-end	500	100

The following excerpt is from Schedule P - Part 1 of the company's 2010 Annual Statement:

Accident Year	Total Net Losses and LAE Paid	Total Net Losses and LAE Incurred
2001	1,800	1,800
2002	2,450	2,450
2003	3,010	3,170
2004	3,500	3,890
2005	4,000	4,705
2006	4,500	5,625
2007	4,150	6,385
2008	3,800	6,330
2009	3,300	6,600
2010	3,000	7,500

- The company writes annual policy terms and does not assume or cede any business.
- For tax purposes, the discount rate for accident year 2012 is 8%, and the tax rate is 35%.
- The U.S. Treasury has promulgated a loss reserve discount factor pertaining to the company's line of business for accident year 2012 (in companies' 2012 Annual Statements) of 0.87.
- Through all of 2012, the company held \$3,200 in corporate bonds with a 5% pre-tax annual yield and \$952 in municipal bonds with a 3% pre-tax annual yield.
- Other than those items specified above, the company has no other income-related items that appear in its 2012 Annual Statement.

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18. (continued)

a. (2.75 points)

Justify whether the company should elect to discount loss reserves for accident year 2012 in tax year 2012 using the company's own Schedule P - Part 1 payment pattern. Assume that the company's projections for subsequent accident years and tax years have no effect on this election decision.

b. (1.5 points)

Calculate the pre-tax statutory income that would appear in the company's 2012 Annual Statement (Statement of Income).

c. (0.5 point)

Provide two pieces of missing information that would be needed to determine the company's federal income tax incurred for tax year 2012.

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**SAMPLE ANSWERS AND EXAMINER'S REPORT**

<b>QUESTION 18</b>							
<b>TOTAL POINT VALUE: 4.75</b>				<b>LEARNING OBJECTIVE: C1, C3, C4</b>			
<b>SAMPLE ANSWERS</b>							
<b>Part a: 2.75 points</b>							
Accident Year	Total Net Losses and LAE Paid (1)	Total Net Losses and LAE Incurred (2)	Cum % Paid (3) = (1)/(2)	Inc % Paid (4) = (3)_AY - (3)_AY+1	% Unpaid (5) 1-(3)	Disc Unpaid : (6) =PV of future (4)	Discount Factor (7) = (6) /(5)
2001	1,800	1,800	100.0%	0.0%	████	█	
2002	2,450	2,450	100.0%	5.0%	████	██	
2003	3,010	3,170	95.0%	5.0%	████	████	████
2004	3,500	3,890	90.0%	5.0%	████	████	████
2005	4,000	4,705	85.0%	5.0%	████	████	████
2006	4,500	5,625	80.0%	15.0%	████	████	████
2007	4,150	6,385	65.0%	5.0%	████	████	████
2008	3,800	6,330	60.0%	10.0%	████	████	████
2009	3,300	6,600	50.0%	10.0%	████	████	████
2010	3,000	7,500	40.0%	40.0%	60.0%	46.8%	0.779

Since the 2010 AY is 12 months old, it is used as a proxy for AY 2012.

Discount factor:  $0.779 < 0.87$   
 Company should select IRS promulgated discount factor since it is greater than the factor developed from the company's own Schedule P. The higher factor will result in larger losses, lower net income and therefore lower taxes.

**Part b: 1.5 points)**

- Statutory EP =  $7000 - (5000 - 2000) = 4000$
- Statutory Incurred Loss =  $2500 + (4500 - 3500) = 3500$
- Statutory Expenses =  $900 + (500-100) = 1300$
- Investment Income
  - Corp bond income (all taxable) =  $3200 * 0.05 = 160$
  - Municipal bond income =  $952 * .03 = 28.56$

## SAMPLE ANSWERS AND EXAMINER'S REPORT

- U/W income:  $4000 - 3500 - 1300 = -800$
- Net Income:  $-800 + 160 + 28.56 = -611.44$

### Part c: 0.5 point(s)

- We are missing the accident year breakout of reserves as of year-end 2011 and year-end 2012.
- We are missing the discount factors (or a way to get them) for the reserves by accident year in 2011 and 2012.
- We are missing the *average* discount factor for tax year 2011.
- We are missing the *average* discount factor for tax year 2012.
- Deferred tax asset or credit carryforward.

### EXAMINER'S REPORT

#### Part a

- Candidate was expected to know how to calculate the discount factor and the tax implications of that factor.
- Most candidates did not point out the need to use AY 2010 for AY 2012. In addition, there were a number of calculation errors. Many candidates did not understand the desire for higher liabilities in order reduce income and reduce taxes.

#### Part b

- Candidate was expected to know how to calculate pre-tax statutory income
- Overall candidates did very well on this question. A few common errors were discounting of reserves and investment income, failure to properly account for change in expense liabilities. Several candidates stopped at calculating underwriting income and did not calculate net income.

#### Part c

- Candidates needed to know what was necessary to calculate taxable income.
- The most common error was stating that the AMT rate was needed.