# EXAM 6 - UNITED STATES, SPRING 2016

# 11. (2.75 points)

An insurance company writes multiple lines of business, including homeowners. Given the following information from the company's Insurance Expense Exhibits and Annual Statements (all figures are in thousands of dollars):

Line of Business: Homeowners	2014 Current Year	2013 Prior Year
Net Loss Reserve	2,500	
		2,200
Net Loss Adjustment Expense Reserves	300	350
Net Unearned Premium Reserve	5,000	4,500
Ceded Reinsurance Premiums Payable	35	15
Prepaid Expense Ratio	30%	-
Agents' Balances	3,600	4,200

• The 2014 Net Investment Gain Ratio (applicable to all lines of business) is 5%.

## a. (2 points)

Calculate the investment gain attributable to insurance transactions for homeowners.

# b. (0.75 point)

Briefly describe how prepaid expenses are treated differently between the calculation of funds attributable to insurance transactions and the calculation of total investable funds, and describe the rationale.

## SAMPLE ANSWERS AND EXAMINER'S REPORT

## **QUESTION 11**

TOTAL POINT VALUE: 2.75 LEARNING OBJECTIVE: C1E

#### **SAMPLE ANSWERS**

## Part a: 2 points

- Mean Net Loss Reserve = (2,500 + 2,200) / 2 = 2,350
- Mean Loss Adjustment Expense Reserves = (300 + 350) / 2 = 325
- Mean Net Unearned Premium Reserve = (5,000 + 4,500) / 2 = 4,750
- Mean Ceded Reinsurance Premiums Payable = (35 + 15) / 2 = 25
- Mean Agents' Balances = (3,600 + 4,200) / 2 = 3,900
- Mean Funds Attributable to Insurance Transactions =

$$2,350 + 325 + 4,750 + 25 - 3,900 - (4,750 * 30\%) = 2,125$$

Investment Gain Attributable to Insurance Transactions = 2,125 \* 5% = 106.25

## Part b: 0.75 point

- Prepaid expenses in the unearned premium reserve are explicitly removed in the calculation of funds attributable to insurance transactions
- They are removed in the calculation of funds attributable to insurance transactions because they have already been expensed and are not an investible asset
- These expenses are not explicitly removed in the calculation of total investible funds because they are already out of policyholders' surplus, which is a component of the calculation

## **EXAMINER'S REPORT**

The majority of points required the direct application of a formula from a syllabus reading. The remaining points required a brief description of the differences between two calculations which was stated directly in the same reading.

## Part a

For part a, candidates were expected to know and be able to apply the formula for the calculation of investment gain attributable to insurance transactions for a line of business. In addition to calculation mistakes, the most common error was failing to include the Mean Ceded Reinsurance Premiums Payable in the calculation of Funds Attributable to Insurance Transactions (resulting in an answer of 105). Less common errors included omitting or reversing the signs of other components of the formula.

## Part b

For part b, candidates were expected to know how prepaid expenses were treated differently between the calculations for funds attributable to insurance transactions and total investible funds, and the reason for the difference. The candidates who had trouble with this part of the question generally focused on the calculation of the prepaid expense ratio, as opposed to how prepaid expenses were treated between the two formulae. Another common error was stating that prepaid expenses were removed from the Mean Net Unearned Premium Reserve in the calculation of funds attributable to insurance transactions, but <u>included</u> in the calculation of total investible funds (instead of stating that they are implicitly removed by the inclusion of surplus in the total investible funds formula).