# EXAM 6 – UNITED STATES, SPRING 2017

# 18. (2.5 points)

Given the following information contained in or derived from the Annual Statement of an insurance company (all figures in dollars):

Reinsurance ceded commissions, excluding contingent	685,000
Reinsurance ceded contingent commissions	15,000
Written premium ceded to affiliates	25,000
Written premium ceded to non-affiliates	1,375,000
Unearned premium ceded to Authorized Other U.S. Unaffiliated Insurers	450,000
Unearned premium ceded to Authorized Mandatory Pools	80,000
Unearned premium ceded to Authorized Voluntary Pools	0
Unearned premium ceded to Authorized Other Non-U.S. Insurers	200,000
Unearned premium ceded to Unauthorized Other U.S. Unaffiliated Insurers	50,000
Unearned premium ceded to Unauthorized Mandatory Pools	0
Unearned premium ceded to Unauthorized Voluntary Pools	0
Unearned premium ceded to Unauthorized Other Non-U.S. Insurers	20,000
Net premiums written	6,500,000
Uncollected premiums and agents' balances in course of collection	430,500
Surplus as regards policyholders	2,500,000

# a. (1.25 points)

Calculate IRIS Ratio 4 (Surplus Aid to Policyholders' Surplus).

# b. (0.75 point)

When IRIS Ratio 4 falls outside the usual range, a company must make adjustments to other IRIS ratios. Identify one such IRIS ratio and calculate it on both an unadjusted and an adjusted basis.

# c. (0.5 point)

Briefly describe two reasons why IRIS ratio 4 is important.

#### SPRING 2017 EXAM 6U SAMPLE ANSWERS AND EXAMINER'S REPORT

#### **QUESTION 18**

TOTAL POINT VALUE: 2.5 LEARNING OBJECTIVE: C2

#### **SAMPLE ANSWERS**

Part a: 1.25 points

### Surplus Aid

Reinsurance ceded commissions= 685,000+15,000=700,000

Reinsurance Premiums Ceded=1,375,000+25,000=1,400,000

Ceding Commissions ratio = 700,000/1,400,000=50%

Unearned premium ceded to non-affiliates = 450,000+80,000+200,000+50,000+20,000=800,000 800,000\*50% = 400,000

400,000/2,500,000=16%

### Part b: 0.75 point

Sample answers include:

#### Sample 1

one such ratio would be IRIS 2 (NWP/PHS)

IRIS 2 pre adj = 6500/2500 = 260%

IRIS 2 after adj = 260%/(1-0.16) = 309.5%

### Sample 2

IRIS 10 = Uncollected + Deferred Prem Bal / PHS

Unadjusted =  $430,500 / 2,500,000 = .1722 \le .4$ 

Adjusted =  $430,500 / (2,500,000 - 400,000) = .205 \le .4$ 

#### Sample 3

Ratio 1 - GWP/PHS

unadjusted = (6,500,000+25,000+1,375,000) / 2,500,000

= 316%

adjusted = 3.16 / (1-0.16) = 376.2%

### Part c: 0.5 point

Any two of the following:

- Significant amounts of surplus aid may indicate PHS is inadequate
- Surplus aid can improve the results of other IRIS ratios enough to conceal important areas of concern
- Surplus Aid can mask the surplus problem and affect ratios 1, 2, 7, 10, 13
- Too much reinsurance will have collectability risk. The company may be impacted severely if all reinsurance contracts are cancelled.

#### **EXAMINER'S REPORT**

Candidates were expected to know how to calculate IRIS Ratio 4 (Surplus Aid to Policyholders' Surplus) from its Statutory Annual Statement components, and understand its importance, including the impact of Surplus Aid on other IRIS ratios.

#### Part a

Candidates were expected to calculate IRIS Ratio 4 (Surplus Aid to Policyholders' Surplus), given the components.

#### SPRING 2017 EXAM 6U SAMPLE ANSWERS AND EXAMINER'S REPORT

#### Common errors include:

- Incorrectly excluding given segments of Reinsurance Ceded Commissions, Written Premium Ceded, and Unearned Premium Ceded.
- Switching Written Premium Ceded and Unearned Premium Ceded in the calculation of Surplus Aid.

### Part b

Candidates were expected to name an IRIS Ratio that relies on Policyholders' Surplus and is therefore impacted by high levels of Surplus Aid, and calculate the ratio on both an unadjusted and adjusted basis. Information provided in the question allowed for the calculation of IRIS Ratios 1 (Gross Premiums Written to Policyholders' Surplus), 2 (Net Premiums Written to Policyholders' Surplus), and 10 (Gross Agents' Balances (in Collection) to Policyholders' Surplus).

#### Common errors include:

- Incorrectly adjusting the IRIS Ratio by adjusting the numerator or increasing the denominator (Policyholders' Surplus).
- Correctly naming other IRIS Ratios that require adjustment but not calculating values for the ratios with the information given.

#### Part c

Candidates were expected to display understanding of how IRIS Ratio 4 helps regulators identify high levels of Surplus Aid, why it can be a concern, and that many other IRIS Ratios are impacted by unusual values of this ratio.

#### Common errors include:

• Giving two reasons that described the same thing or omitting a second reason.