

EXAM 6 – UNITED STATES, SPRING 2019

9. (2.25 points)

The following information is from an insurer's 2017 Annual Statement (all dollar figures are in thousands):

	2017
Written premium	\$100,000
Unearned premium reserve beginning of year	\$140,000
Unearned premium reserve end of year	\$150,000
Current accident year loss and loss adjustment expense ratio	70%
Adverse loss development from all prior accident years	\$10,000
Underwriting and other expenses incurred ratio (relative to earned premium)	35%
Gross investment income	\$50,000
Change in unrealized gains	\$15,000
Investment expenses incurred	\$5,000

a. (1.25 points)

Calculate the 2017 underwriting income for this insurer.

b. (0.5 point)

Calculate the 2017 net investment income earned for this insurer.

c. (0.5 point)

Assume the company has purchased an interest rate derivative that qualifies as a highly effective hedge against changes in the value of its bond portfolio. All assets in its bond portfolio are rated NAIC Class 2. If the value of the bond portfolio decreases by 10%, briefly describe each of the following:

- i. The SAP treatment of the derivative
- ii. The impact of the derivative on statutory surplus

SAMPLE ANSWERS AND EXAMINER'S REPORT

Part b
Candidates were expected to know whether or not the pricing of each program is subsidized, and understand the difference between subsidization and funding.
Common mistakes included: <ul style="list-style-type: none"> • Confusing lower expense component of rates with subsidization • Stating who reinsures the program, which does not answer the question regarding subsidies in pricing • Confusing pricing subsidies with how a program is funded • Stating that rates are not actuarially sound with no further explanation; however, low rates imply possible losses but not subsidization
Part c
Candidates were expected to know which policies are intended to increase participation in the NFIP, and demonstrate understanding of the difference between subsidization and other means of increasing the policy base.
Common mistakes include: <ul style="list-style-type: none"> • Citing subsidization policies • Misinterpreting the question as designing a policy for the NFIP to increase participation

SPRING 2019 EXAM 6US, QUESTION 9	
TOTAL POINT VALUE: 2.25	LEARNING OBJECTIVE: C1
SAMPLE ANSWERS	
Part a: 1.25 points	
Earned Premium = $100 - (150 - 140) = 90$	
Underwriting Income = $90 - 90 * (.35 + .7) - 10 = -14.5$	
Part b: 0.5 point	
Net Investment Income Earned = $50 - 5 = 45$	
Part c: 0.5 point	
<u>Sample responses for part (i)</u> <ul style="list-style-type: none"> • Held at amortized cost • Derivative will be accounted for the same as NAIC 2 Bonds, which is at amortized cost 	
<u>Sample responses for part (ii)</u> <ul style="list-style-type: none"> • No impact to surplus. • There will be no impact as all bonds + this derivative will be still valued at amortized cost. The market value change has no impact. 	
EXAMINER'S REPORT	

SAMPLE ANSWERS AND EXAMINER'S REPORT

Candidates were expected to show an understanding of the statutory financial statements, as well as the definition and accounting treatment of specific values within.

Part a

Candidates were expected to calculate underwriting income given the information provided.

Common mistakes included:

- Adding the change in unearned premium reserve to written premium to calculate earned premium (instead of subtracting)
- Omitting prior accident year adverse loss development
- Multiplying the current accident year loss and loss adjustment expense ratio and/or the underwriting and other expenses incurred ratio by written premium

Part b

Candidates were expected to calculate net investment income earned given the information provided.

Common mistakes included:

- Including the change in unrealized gains
- Subtracting taxes

Part c

Candidates were expected to describe the SAP accounting treatment of highly effective hedges and the net impact of the hedge on statutory surplus.

Common mistakes for part (i) included:

- Stating an incorrect accounting treatment
- Discussing the treatment of the bond portfolio, but not the derivative
- Stating only "asset" or "admitted asset"

Common mistakes for part (ii) included:

- Incorrect surplus impact
- After identifying amortized cost in part i, stating an impact relating to fair value
- Stating hedge "partially offsets" bond portfolio decrease