

3. (1.5 points)

A personal auto insurer has recently completed the acquisition of a smaller insurer in order to increase their market share in a state.

An actuary has calculated a rate level indication, using only the smaller insurer's historical data for that state.

a. (0.5 point)

Explain the general role of credibility in ratemaking.

b. (1 point)

Propose a complement of credibility for the analysis and evaluate it based on three desirable qualities.

EXAM 5 SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 3	
TOTAL POINT VALUE: 1.5	LEARNING OBJECTIVE: A4
SAMPLE ANSWERS	
Part a: 0.5 point	
<p><u>Sample Answer 1</u></p> <p>The general role of credibility in ratemaking is to assess how much weight should be reasonably given to the actual data and how to determine a reasonable complement in order to ensure that rate changes are credible and due to signals rather than noise created from small amounts of data.</p> <p><u>Sample Answer 2</u></p> <p>Credibility complements are used in order to make indications more actuarially sound. If data is too sparse or erratic, it shouldn't be used by itself when creating the indication for your rate review. It protects the insurer (and insureds) from creating rates that are excessive or inadequate.</p>	
Part b: 1.0 point	
<p>The acquiring personal auto insurer could use its own indication in the state as the complement for the smaller insurer. Assuming the smaller insurer was not included in this indication, this complement would be independent. There is also a logical relationship between the small insurer's experience in the state and the acquiring insurer's experience in the same state. The complement may be biased, however, because the two companies pre-merger may have different underwriting guidelines, rates, so their expected loss ratios could be different.</p>	
EXAMINER'S REPORT	
<p>Candidates were expected to demonstrate a good understanding of credibility's role in ratemaking, recommend a complement of credibility and be able to evaluate the appropriateness of their complement based on at least 2 qualities.</p>	
Part a	
<p>Candidates were expected to demonstrate an understanding of credibility's role in ratemaking. Key observations were around the predictive power of data driven by volume and stability. Ideally, candidates also discussed bringing in a complement for data lacking credibility; however, candidates could also demonstrate an understanding of this concept by answering part b.</p> <p>Common mistakes included being too vague explaining credibility. For example, saying credibility is the reliability/trustworthiness of data was not awarded full credit as reliability and trustworthiness are synonyms for credibility.</p>	

EXAM 5 SAMPLE ANSWERS AND EXAMINER'S REPORT

Part b

Candidates were expected to be able to propose an appropriate complement and evaluate the appropriateness of at least two qualities.

Some candidates proposed the complement “trended present rates” which the paper discusses is not appropriate when there is a larger group data from which to select a complement. Therefore, full credit was only awarded if candidates discussed the disadvantage/limitation of using trended present rates.

Another common mistake was listing qualities without discussion. These answers were awarded partial credit as a more thorough argument was expected.