

Institute of Actuaries of India

Subject CP3 – Communication Practice

March 2022 Examination

INDICATIVE SOLUTION

Introduction

The indicative solution has been written by the Examiners with the aim of helping candidates. The solutions given are only indicative. It is realized that there could be other points as valid answers and examiner have given credit for any alternative approach or interpretation which they consider to be reasonable.

Solution 1:

Dear Lata,

Thank you for your email. I have attempted to answer the questions you have on repricing in the following sections.

First, how do we measure product profitability. Our products are long duration contracts and profits from these products emerge over the term of the contracts. We follow a method called the Value of New Business (VNB) for measuring the profitability of the contracts. This method measures the profits over the term of the contract and discounts these profits at the risk discount rate. Shareholders put in capital and the risk discount rate is the rate at which the shareholders expect to be rewarded for the risk on the capital that they provide.

The need for capital arises on account of two factors. For each contract we must set aside monies called reserves which ensures that there is an ability to meet customer obligations under most circumstances. The initial premium that we receive may not be sufficient to meet the cost of acquisition of the customer and the reserves. Shareholders would need to pump in capital to bridge this gap. Apart from the reserves, there is additional capital that we need to hold for the business that we write.

In the past we have been pricing our products competitively and this has enabled us to garner a good market share. However, profits that have emerged from the business have not been sufficient to increase the capital to a level that would be needed for us to continue to grow at the current levels.

This has made us revisit our pricing philosophy. We have now articulated that the VNB we expect should be higher for the capital that we deploy. We also require more certainty in respect of the profits from the business that we write. If there is uncertainty, then the profitability should be improved to compensate for the higher risk the shareholders will be taking. The risk discount rate that we use for riskier products increases resulting in an increase in prices.

In the next few paragraphs, I will explain how this uncertainty has risen and how this has impacted the prices.

To measure the profitability, we need to make assumptions of mortality, persistency, and interest rates. Mortality assumption lets us establish the amounts we will be paying out in case of death during the term of the contract. Persistency assumption enables us to estimate how many customers continue with the contracts. Interest rate assumptions enable us to establish the amount of interest we earn on the reserves and the capital that we set aside. We need to note that mortality and persistency assumptions are derived based on our past book.

As we grow our business, we expect a change in customer profile and customer behaviours. Our contracts are long duration contracts and we have not been able to achieve the kind of asset liability matching as required which also results in uncertainty of profits. We therefore stress these parameters to see the possible impact on VNB and make sure that the profitability is high enough so that even if one of the parameters is different from our underlying assumption, the risk to the profitability is less.

This has resulted in an increase in premiums. You are right in that volumes could be affected. Therefore, we have tested the impact on volumes and even with lower volumes, VNB will not be affected significantly. It helps us with our capital situation as with a significantly lower capital deployment we can generate a marginally higher VNB. The repricing also enables us to recover our capital faster which is important in the current context of shortage of capital.

I hope I have been able to explain our pricing philosophy and the trigger for repricing. Please do reach out to me if you have any more questions.

Regards

Ram

[90 Marks]

Solution 2:

Any technical term the candidate considers as jargon with an explanation of why they considered it as jargon.

[4 Marks]

Solution 3:

Any information that the candidate filtered. There are a lot of technical details of how pricing is done and how VNB is calculated. The candidate should be able to demonstrate that they filtered this information while framing the response.

[4 Marks]

Solution 4:

Structuring can be done by giving specific headings or sign posting in the reply. This is an email reply and therefore structuring using headings maybe difficult. The candidate should be able to explain how they have done structuring in their reply.

[2 Marks]
