

# **INSTITUTE AND FACULTY OF ACTUARIES**

## **EXAMINATION**

25 September 2020 (am)

### **Subject CP1 – Actuarial Practice Core Practices**

#### **Paper Two**

Time allowed: Three hours and fifteen minutes

<p>In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.</p>
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If you encounter any issues during the examination please contact the Examination Team on T. 0044 (0) 1865 268 873.

[**Note:** your work needs to link to the information provided in the questions and should discuss/outline areas of professionalism/actuarial advice as required. Limited credit will be given to solutions where generic answers have been given that do not refer back to the information provided.]

## **1 Background**

An insurance company in a developed country offers a wide range of life and general insurance products.

The company's board has commissioned several projects to improve its business results.

### **Project 1**

The government has introduced a requirement for all companies that own their own commercial properties to purchase commercial property insurance that covers the policyholder in the event of fire damage to its property. Although the company offers property insurance products, it does not offer this specific product and the board wishes to expand into this market by launching a commercial property insurance product.

### **Project 2**

The payments in respect of the sum assured paid out under one of its group life term assurance policies increased significantly over the year, following an explosion that caused multiple fatalities at a factory. The board wishes to review the pricing of future group life term assurance policies and consider how it can improve the management of the risks under these policies.

### **Project 3**

Responsible investment is an investment strategy that integrates environmental, social and governance factors into investment analysis and decisions.

The board wishes its defined benefit scheme to increase the proportion of the scheme's assets that are invested in 'Responsible Investments' and has earmarked a significant investment in either:

- (a) an electricity company using solar and wind power to produce electricity; or
- (b) a 'Responsible Investments' fund offered by an external investment manager, investing in a range of different companies.

### **Project 4**

The company currently sells an income protection product that pays out an income in the event of incapacity. The beneficiaries covered by this product are required to visit a local doctor every year to confirm they remain eligible to continue to receive the benefit over the next 12 months. To control and manage the costs of providing these benefits, the company wishes to appoint its own doctors to make the assessment instead.

## Questions

- (i) Discuss how the proposals should be prioritised. [3]
  - (ii) Outline the factors that the company would need to consider for a launch of the new product under Project 1. [6]
  - (iii) Describe how the company would review the pricing of the product under Project 2. [6]
  - (iv) Discuss how the company can manage and control its risks in Project 2. [8]
  - (v) Compare the two investment options under Project 3 in relation to the impact each option would have on both the company and the defined benefit pension scheme. [8]
  - (vi) Suggest the possible impact of the board's decision for both options under Project 3 on the scheme's funding and risk position. [8]
  - (vii) Outline how the company could, by appointing its own doctors under Project 4, control its benefit payments and costs. [8]
- [Total 47]

## 2 Background

A large proprietary life insurance company writes a range of products in its home market. It has implemented the principles of treating customers fairly throughout all aspects of its business.

The company has been making losses on its portfolio of annuities in payment for the last 5 years. The Board of the company feel that a significant factor in these losses is due to poor policy data for its annuity business. The pricing actuary of the company has also expressed concerns that the rate of future improvements in longevity will be higher than was assumed in the original pricing of the existing annuity business.

The Board of the company are also under pressure from the company's shareholders to start selling new business in developing markets overseas. The Board are therefore considering a potential opportunity in a large overseas Country X. To date, the only life insurance policies that have been allowed to be sold in Country X have been through the state nationalised insurer. The state nationalised insurer offers only a very limited range of products, and significant parts of the population have not purchased any life insurance products. Proprietary life insurance companies have just started to be allowed to compete with the state nationalised insurer. The Company is considering whether to start selling life insurance business in Country X.

The insurance regulator in Country X is considering how it might assess whether customers have been treated fairly, by surveying customers when they receive the payouts on their products, and then asking how happy the customers are with their payout.

### Questions

- (i) Describe the types of checks that could be made on the policy valuation data of the annuity business. [4]
- (ii) Discuss how the company's accounting data could be used to assess the policy valuation data of the annuity business. [13]
- (iii) Discuss the advantages and disadvantages to the shareholders of the company of adopting the same approach to treating customers fairly for business written in Country X to the business written in the company's home market. [5]
- (iv) Discuss the advantages and disadvantages for the following parties if the company has a significantly weaker approach to treating customers fairly for Country X business than that taken for business written in the company's home market:
  - (a) potential consumers in Country X.
  - (b) the overseas regulator in Country X.[4]

- (v) Assess the effectiveness of the proposal by the insurance regulator in Country X to assess whether customers have been treated fairly. [9]
  - (vi) Outline the main advantages, compared with a small mutual insurer, you would expect the company to have in starting to sell business in Country X. [8]
  - (vii) Discuss the factors that the company should consider in deciding on the relative importance of launching overseas or improving the profitability of the annuity business. [10]
- [Total 53]

**END OF PAPER**