INSTITUTE AND FACULTY OF ACTUARIES

EXAMINATION

5 April 2019 (am)

Subject CP3 – Communications Practice
Core Practices

Time allowed: Three hours

INSTRUCTIONS TO THE CANDIDATE

1. You have three hours to complete the paper.

2. You must write your submission using a blank document and not use an imported e-template.

Your file names must include your ARN and each file should also contain your ARN as a header or footer.

Please note that the content of this paper is confidential and candidates are not to discuss or reveal the contents under any circumstances nor are they to be used in a further attempt at the exam.

If you encounter any issues during the examination, please contact the Examinations Team at T. +44 (0) 1865 268 255

You work for Oak Consultants, an actuarial consultancy. You have just returned from holiday to find the following email from your manager, Ruth Postlethwaite. Ruth is the actuary appointed to advise the Trustees of the Dunforth Pension Scheme.

Re: Error in the Dunforth Pension Scheme Valuation

Hi Chris,

I hope you had a good holiday. Unfortunately, in your absence we discovered an error in the Dunforth Pension Scheme valuation. It seems that there was a problem with the coding of the valuation software. I have attached an email from one of the actuarial analysts which outlines the problem.

It looks like the same error was in the 2015 valuation as well. We used the coding from last time, hence it being carried over. This also explains why this was not picked up in the analysis of surplus between the two valuations.

Obviously, this is not good, particularly given that the valuation report has already been issued to the Trustees. We need to review our checking processes, but in the short term the most important thing is to correct the error and to be transparent about all of this with the Trustees. I am now out of the office for a few days, so I wonder if you could draft a paper for the Trustees addressing this issue. A couple of sides of A4; around 700–850 words should be adequate.

I have warned the chair of the Trustees about this issue and we have agreed that there is no need to revisit or backdate the level of contributions paid by the company between the 2015 and 2018 valuations. We will send this paper to the Trustees ahead of their next meeting. I will then talk through it in the meeting and discuss any questions or concerns that they may have.

Kind regards,
Ruth

Attachment to the email

Re: Error in the marriage assumptions for the Dunforth Pension Scheme Valuation

Dear Ruth,

The error we discussed earlier has transpired because of an erroneous line of code in the modelling of the marriage assumptions. The field with marital status has the following flags:

M	Married/Civil Partnership
D	Divorced
W	Widowed
S	Single
U	Unknown
N	Did not disclose

It is not clear what the difference is between U and N in the data, but clearly for both groups we do not know the marital status of the individual. There was an error in the mapping of these fields as follows:

Data item	Original mapping	Correct mapping
M	2	2
D	3	3
W	4	4
S	1	1
U	99	99
N	1	99

Our mapping codes use 99 for unknown.

This overstated the number of single people among the pensioners because pensioners who were put in field N were given a code of 1 and hence erroneously classified as single.

The assumption that is applied to people with unknown marital status (that is all of the deferreds and some of the pensioners) is calculated by the algorithm within the model and is based on the marriage data that we have for the pensioners. This assumption was therefore wrongly calculated and overstated the single members. The percentage married assumption for members where we have no data should have been 80%, but 67% was used. The liabilities in the valuation results were therefore understated.

We have rerun the valuation with the correct mapping, and it has increased the liabilities by $44m. The deferred liability is now $570m and the pensioner liability is now $626m. The assets have obviously not changed and so we now have a funding level of 77%.

The analysis of surplus would remain unchanged except for this adjustment to the results – i.e. there would be an additional item in the analysis of surplus correcting the error which increases the liabilities by $44 million.

The additional deficit will require higher company contributions to eliminate – we must now ask the company for $34m p.a. over the ten-year recovery period from 31 October 2018.

We have checked everything else again very thoroughly and calculated the results from first principles. I am confident that there are no other material errors in the figures. I have also reviewed our checking procedures and added some additional checks to ensure that the coding is always fully reviewed whenever a valuation is signed off.

Hope this gives you what you need.

Regards,
Anna

Instructions to candidates

Remember that CP3 is a test of your ability to filter information and communicate it to a particular audience. Use only information that is contained in this examination paper and the advance material provided. Do not draw on prior knowledge of a particular market, legislation or company.

Questions

1   Draft a paper for the next trustee meeting as instructed in the email from Ruth.   [90]

2   (i)   Your firm made a mistake in something that had already been communicated to your client.

         Outline, with examples, how you adapted your writing to ensure the paper was appropriate given the sensitive circumstances.   [6]

      (ii)   Give TWO examples of jargon which you purposefully excluded from your paper, in each case explaining why you considered it to be jargon for this audience.   [2]

      (iii)   Explain your approach to presenting the numerical information in your paper, justifying the format you used.   [2]
                                                                                              [Total 10]

END OF PAPER