INSTITUTE AND FACULTY OF ACTUARIES

PAST EXAM

Subject CA3 – Communications

(Written)

Scenario: Compulsory Insurance Scheme

Time allowed: 1 hour 30 minutes plus 15 minutes' reading time

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You work for a government organisation that operates a compulsory insurance scheme for all private sector companies. The insurance scheme provides state funded redundancy payments to individuals when their employer becomes insolvent. You have received the following letter from an irate company finance director. Draft a reply in approximately 450–500 words.

Note: Information regarding the calculation of the insurance premium for the previous 2 years is set out in the attached schedules. These 2 schedules together with information on the legal requirements to pay a compulsory insurance premium have already been provided to the finance director in a previous response (referred to in the letter below).

Dear Sirs

Re: Compulsory redundancy scheme premium for XYZ Company

We have recently received a letter setting out our insurance premium for the forthcoming year – 2008/09. This shows that there has been nearly a nine fold increase in our premium compared to that which we were charged last year. We find this totally unacceptable. I have previously written to you to query this increase and I find the response you have sent me to be totally unintelligible.

Has there been a mistake in the calculations?

I think when you decide to stop confusing yourself with the legalities that you refer to in section 25, section 27, section 28 (a)–(c) etc. of the Compulsory Redundancy Schemes Act 2003 you may be able to explain in plain English why you consider nearly a 9 fold increase in our premium has occurred.

We are all very busy people and if you could reply in a few lines that explain the change in the premium in layman's terms it would be very much appreciated.

Yours faithfully,

Joe Smith
Finance Director
XYZ Company

Schedule setting out the calculation of the Redundancy insurance premium for 2007/08

Name of company: XYZ Company
Risk based premium factor for 2007/08 = 0.49

Service	*Number of eligible employees*
Less than 2 years	22
2–5 years	90
more than 5 years	90
Total	202

Company redundancy score for 2007/08 = 77

(The attached table should be used for converting the redundancy score into the probability of the company becoming insolvent over the forthcoming year.)

Company based premium

- Defined in section 27 of the Compulsory Redundancy Schemes Act 2003 as amended by subsequent regulations.

- Company based global formulae that apply to all eligible private sector companies (see section 25).

Company based premium calculated as the sum of:

£2.43 per eligible employee where the total number of employees is less than 1,000, and £1.50 per eligible employee where these number greater than 1,000.

In addition a fixed payment of £150 is made per Company.

Company based premium = 2.43 × 202 +150 = £640.86

Risk based premium

- Defined in section 28 (a)–(c) of the Compulsory Redundancy Schemes Act 2003 as amended by subsequent regulations.

Risk based premium is calculated as:

"Employees related premium" × "Risk based premium factor" × "Probability of company insolvency"

where:

- Employees related premium = number of eligible employees × "Redundancy payment factor".

- The employees related premium is defined in section 6(a) of the relevant legislation. It is weighted heavily in favour of longer serving employees to reflect the assessed probability of obtaining future employment within specified parameters.

The following table shows the redundancy payment factors applicable to 2007/08 and the calculation of the "Employees related premium" applicable to the XYZ Company.

Service	*A* *Number of eligible employees*	*R* *Redundancy payment factor*	$A \times R$
Less than 2 years	22	10	220
2–5 years	90	20	1,800
more than 5 years	90	120	10,800
Total	202	n/a	12,820

Risk based premium = 12,820 × 0.49 × 0.1250 = £785.23

Total premium for 2007/08 = 640.86 + 785.23 = £1,426.09

Schedule setting out the calculation of the Redundancy insurance premium for 2008/09

Name of company: XYZ Company
Risk based premium factor for 2008/09 = 2.46

Service	*Number of eligible employees*
Less than 2 years	25
2–5 years	45
more than 5 years	150
Total	220

Company redundancy score for 2008/09 = 78

(The attached table should be used for converting the redundancy score into the Probability of the company becoming insolvent over the forthcoming year.)

Company based premium

- Defined in section 27 of the Compulsory Redundancy Schemes Act 2003 as amended by subsequent regulations.

- Company based global formulae that apply to all eligible private sector companies (see section 25.

Company based premium calculated as the sum of:

£2.48 per eligible employee where the total number of employees is less than 1,000, and
£1.60 per eligible employee where these number greater than 1,000.

In addition a fixed payment of £152 is made per Company.

Company based premium = 2.48 × 220 +152 = £697.60

Risk based premium

- Defined in section 28 (a)–(c) of the Compulsory Redundancy Schemes Act 2003 as amended by subsequent regulations.

Risk based premium is calculated as:

"Employees related premium" × "Risk based premium factor" × "Probability of company insolvency"

where:

- Employees related premium = number of eligible employees × "Redundancy payment factor".

- The employees related premium is defined in section 6(a) of the relevant legislation. It is weighted heavily in favour of longer serving employees to reflect the assessed probability of obtaining future employment within specified parameters.

The following table shows the redundancy payment factors applicable to 2008/09 and the calculation of the "Employees related premium" applicable to the XYZ Company.

Service	*A* *Number of eligible employees*	*R* *Redundancy payment factor*	$A \times R$
Less than 2 years	25	10	250
2–5 years	45	20	900
more than 5 years	150	120	18,000
Total	220	n/a	19,150

Risk based premium = 19,150 × 2.46 × 0.2501 = £ 11,781.96

Total premium for 2008/09 = 697.60 + 11,781.96 = £12,479.56

Probability of company becoming insolvent

1. This table should be used for converting the redundancy score for the relevant company into the probability of the company becoming insolvent over the forthcoming year.

2. This table has been approved by the government for assessing the risk of insolvency for the purpose of section 8(b) of the Compulsory Redundancy Schemes Act 2003. The tables should not be relied on for any other purpose.

3. The table applies from 1 January 2000 until further notice.

Redundancy Score	*Probability of insolvency*
0–60	0.0035
61–65	0.0044
66–70	0.0054
71	0.0065
72	0.0083
73	0.0094
74	0.0181
75	0.0390
76	0.0806
77	0.1250
78	0.2501
79	0.3580
80	0.4975

Risk based premium factor

Year	*Factor*
2007/08	0.49
2008/09	2.46

1. This factor is set by the Government each year and reflects the economic climate in the relevant year.

2. The factor for 2008/09 is much larger than that applicable to 2007/08 because the perceived risk of company's becoming insolvent is judged to be much higher for 2008/09 compared to 2007/08.

3. This factor does not vary by company

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