Tutorial Letter 202/1/2017
Risk Financing and Short Term Insurance

RSK3701

Semester 1

Department of Finance, Risk Management and Banking

This tutorial letter contains the suggested solutions to assignments 02 and 03.

Bar code

CONTENTS

Please note / important notes:

Please register as a user of myUnisa as soon as possible. It is free of charge. Visit https://my.unisa.ac.za for details. At myUnisa you will be able to get in touch with fellow students, submit your assignments, update your details, participate in discussion forums and blogs and have access to important announcements made pertaining to this module.

It is also important that you provide Unisa with your cellular number because important announcements may be sent to you by sms.

1 INTRODUCTION

Dear Student

The purpose of this tutorial letter is to provide you with guidelines on answering assignments 02 and 03.

2 GUIDELINES FOR ANSWERING ASSIGNMENT 02

Question 1: Correct option 4

Refer to Chapter 6 in the prescribed book.

Proximate cause refers to the dominant cause of a loss. It is **not** necessarily the first or last cause of the loss where more than one cause/event contributes to the loss. The insurer is only liable for losses proximately caused by an **insured** peril.

Question 2: Correct option 4

Refer to Chapter 9 in the prescribed book.

Fidelity guarantee insurance is specifically designed to deal with fraud and theft by employees and covers theft of **money** and of **stock** and **goods**. The level of hazard under fidelity guarantee insurance is judged by the **levels of control** (how easy it would be for staff to steal) and the **salaries and wages** paid in a business. Fidelity guarantee insurance can be issued on a **named persons** basis, a **positions** basis and a **blanket** basis. The premium of fidelity guarantee insurance is based on the **sum insured**, the **number of employees** and the **level of controls** to prevent theft and how hazardous the risk is.

Question 3: Correct option 3

Refer to Chapter 9 in the prescribed book.

Money transported to and from the bank is covered under money insurance. Theft of money by employees is covered under money insurance only if discovered within **14** days of its happening. The breakage of mirrors in a fitting room of a retailer is covered under **glass** insurance. Shoplifting **is not** covered under theft insurance as there is no forcible or violent entry or exit to or from the premises involved.

Question 4: Correct option 2

Refer to Chapter 8 in the prescribed book.

Personal accident policies are policies of compensation. Personal accident policies provide **no cover** for illnesses. Temporary disablement due to an accident is normally payable for **52 to 104** weeks. Cover is normally restricted to persons between the ages of **15 and 70** years old.

Question 5: Correct option 3

Refer to Chapter 9 in the prescribed book.

Exclusions to policies can be deleted and the peril covered for an extra premium. **Exceptions** to a policy cannot be deleted and will always apply. Collusion or theft by employees is a general exception under most accident policies. Loss or damage arising from war is a general **exception** to commercial policies.

Question 6: Correct option 4

Refer to Chapter 11 in the prescribed book.

Companies authorised to issue SASRIA cover are remunerated by means of commission. The government is the **sole** shareholder of SASRIA. The government has a **limited** liability

towards SASRIA of R1b. SASRIA **only cover risks in South Africa**. A similar arrangement applies in Namibia (NASRIA).

Question 7: Correct option 2

Refer to Chapter 7 in the prescribed book.

The solvency margin of a company is the **difference** between the total value of its assets and its outstanding liabilities. Shareholders of a company usually prefer lower solvency margins. Lower solvency margins indicate a **higher** utilisation of resources. Policyholders usually prefer **higher** solvency ratios.

Question 8: Correct option 1

Refer to Chapter 4 in the prescribed book.

Advanced listing entails the listing of policies due for renewal and is done approximately **two** months before the renewal date of policies. Renewals are listed in advance to enables the underwriter to rate the claims experience for the policy. Advance listing used to be a long process completed manually by the claims department. With the development of computer technology this process has become **shorter and less cumbersome**.

Question 9: Correct option 1

Refer to Chapter 5 in the prescribed book.

Proportional reinsurance can be arranged on a **facultative or treaty basis**. With **non-proportional** reinsurance the cedant will underwrite its retention as a form of first-loss insurance. **Non-proportional reinsurance** agreements have grown in popularity because they are simple to operate.

Question 10: Correct option 1

Refer to Chapter 6 in the prescribed book.

Arbitration is used to resolve problems of quantum. An ex gratia payment is made without prejudice and therefore **does not** affect future claim payments. Contribution and subrogation **do not apply** to ex gratia payments as these are not indemnity payments but are **compensation payments**.

Question 11: Correct option 3

Refer to Chapter 6 in the prescribed book and study unit 6 in the Unisa MO001guide.

A ship has an insurable value of R5 000 000 but is insured for only R4 500 000. The ship is damaged during a storm at sea. Damage amounts to R500 000. The insurer will be liable for **R450 000** of the loss.

Calculation:

R4 500 000 x R500 000
R5 000 000 1

= **R450 000**

Question 12: Correct option 3

Refer to Chapter 7 in the prescribed book.

An excessive claim reserve will result in the loss ratio of the insurer appearing **higher** than it actually is, a **decrease** in the share price of the insurance company, a decrease in investments from external sources and a **higher** solvency margin.

Question 13: Correct option 1

Refer to Chapter 8 in the prescribed book.

The cover provided by all risk insurance is also referred to as ***away from premises risks***. A cricket bat broken during a match will not be covered under the All Risk section of a Personal Lines policy. A radio system stolen from a locked motor vehicle **will be** covered under the All Risk section of a personal lines policy. Money, cheques and coins **are not covered** under the All Risk section of a personal lines policy.

Question 14: Correct option 2

Refer to Chapter 7 in the prescribed book.

Personal accident policies are policies of **compensation** because you cannot place a value on the life of someone. The insured cannot be indemnified for his/or her loss of life or disability. The insured however is compensated if injured or killed by violent external and visible means, as a direct result of an accident, to the value of the amounts specified in the personal accident policy. **Contribution,** subrogation and average only apply to policies of **indemnity**. Personal accident policies are **short-term policies**. Insurable interest is a requirement when any insurance policy is purchased. The absence of insurable interest could render the insurance contract illegal, void or unenforceable. The principle of indemnity **is not** enforced by insurable interest but through principles such as contribution average and subrogation and Annuities are classified as long-term insurance. Insurable interest **is required** when the annuity is purchased but not at claim stage.

Question 15: Correct option 1

Refer to Chapter 10 in the prescribed book.

Motor traders' internal policies only cover the insured's **own vehicles** against accidental damage. It is rated on the **size** of the insured's premises and the **wage figure** for the company. Vehicles temporarily garaged in the course of a journey are covered **under motor traders' external policies.**

3 GUIDELINES FOR ANSWERING ASSIGNMENT 03

Question 1 (10 marks)

Numerical example: (You should have included your own numerical example, using fictional figures)

ABC Traders, a medium sized retailer, is considering the implementation of a self-insurance programme and approaches you for some assistance in this regard. The following information is supplied by the auditor of the concern to assist you with your final recommendations:

Annual sales	R1 100 000
Net income after tax	R 520 000
Average net income after tax for 5 years	R 580 000
Net income percentage of turnover	33%
Un-mortgaged assets	R400 000
Current ratio	2:1
Asset test ratio	1.1:1

You are required to comment on the aforementioned organisation's ability to absorb losses and to make recommendations with regard to the implementation of a self-insurance programme. All recommendations should be backed by sound theoretical principles. The suggested solution is based on numerical example supplied.

Refer to Chapter 12 in the prescribed book.

Before answering any question you should **analyse the question** to determine exactly what is required from you. Highlight the **key instructions** and **words** in the question to guide you in answering the question.

When answering a long question such as this, make sure to structure your answer by using **headings and subheadings** and writing in **point form**.

Please keep in mind that an assignment should be a learning experience and should therefore be as complete and detailed as possible.

You could commence your answer to this question by providing a brief **theoretical discussion** of the various financial variables to be considered in measuring the loss assumption ability of the business.

- **Working capital**:

Working capital reflects the liquidity of the business. A range between 1% and 25% of working capital is considered as guideline when deciding on the amount to be reserved for loss assumption. Where the current assets of a business cannot be easily liquidated or where the liquidity levels fluctuate throughout the financial period, the lower end of the scale should be considered for loss assumption. The higher end of the scale applies to stable and higher liquidity ratios. √

- **Total assets:**

The ability to absorb losses may also be determined by taking into consideration the proportion of total assets available for funding. A range between 1% and 5% is considered practical. Where assets are highly leveraged and illiquid the lower end of the scale will be considered. The higher end of the scale applies when the assets of the business is liquid or unencumbered. √

- **Earnings method:**

The ability to fund losses can also be determined by considering the current earnings and the previous five years' earnings of the business. The suggested range is between 1% and 3% of current retained earnings plus 1% to 3% of average pre-tax earnings over the preceding 5 years. √

- **Earnings per share**:

Earnings per share represent the most tightly constrained measure of loss assumption. It is used as a conservative measure to ensure that self-funding does not over-extend a public entity or company to a point where earnings per share or current budget would be impaired by a large loss in a single reporting financial year. Normal loss assumption is considered 10% of earnings per share of a public company and 10% to 15% of the expected excess of revenue over expenditure in a public entity. The proportion will depend on management discretion and the perception of what is required by investors in a particular industry. √

- **Sales budget:**

The final indicator is based on the sales budget with a range of 0,5% to 2% of annual sales or revenue as guideline. It measures the business' ability to generate revenue. The lower end of the scale applies to a high volume, heavy leveraged operation while the higher end of the scale applies to businesses with traditionally higher profit margins. √

The above indicators should finally be considered within the constraints of the entity's overall attitude towards risk. Companies with a more risk adverse culture may interpret the variables in a different light than entities with a more risk taking culture.

The next section of the answer may be answered in table format. You need to make a **recommendation** and **motivate** your recommendation. There is really no right or wrong answer as the specific range that you indicate will depend on your own numerical example and attitude towards risk.

NORM	RATIO OF COMPANY	RECOMMENDATIONS AND COMMENTS
Working capital 1-25%	2:1 Current ratio 1.1:1 Asset test ratio√	The working capital ratios imply that a higher ratio of working capital may be reserved for self-insurance. Recommended range: 10-15% of working capital. The figure cannot be calculated as the amounts of current assets and liabilities are not suplied.√
Total assets 1-5%	Un-mortgaged: R400 000	There is not sufficient information as the total assets and liability figures are not provided. Therefore a lower range of 1% of un-motgaged assets is recommended. √
Earnings 1-3% of current earnings Plus 1-3% of pretax earnings over the past year	The earnings was relative stable for the preceding five years and use higher scale of 2% can be used: R520 000 x 0,02 = R10 400 R580 000 x 0,02 = R11 600√	Based on earnings, an amount of R22 000 can be recommended to be reserved for self-funding√
Earnings per share	No information supplied.	
Sales Budget 0.5-2% of annual sales or revenues	Sales – R1 100 000 Profit margin – 33% √	The profit margin is relative low and the lower end of the scale, 1% of annual sales, is therefore recommended. R1 100 000 x 0,01 = R11 000√

The above answer contains a lot of facts – a student can easily obtain full marks. Many of the facts are however repeated for which only one mark will be awarded. It is of utmost importance to highlight facts to ensure you do not duplicate facts in answers.

Question 2 (10 marks)

Graphically illustrate and explain the relationship between **severity and frequency** of losses and the **funding decision**. In your answer identify and briefly explain the **three categories of possible losses** in an organisation.

Suggested solution:

Refer to Chapter 12 of the IISA prescribed book.

In a database of historical loss experience, we can identify three loss categories defined in terms of their individual impact on the financial integrity of a company.

- A range of relatively small losses exist but they have no particularly disturbing effect on a company's finances beyond their direct cost.√
- Then there is a cost range in terms of which the loss effects can be reasonably established by adding the direct cost of the loss to the cost of having to borrow the additional funds in the money market.√
- In a third range, the cost of extensive losses has a more serious effect on the ability of the company to finance the loss from its regular cash flows and normal credit lines. It may be advisable to transfer this cost to an insurer.√

Losses can also be classified as type 1, II and III losses:

Type I losses

The first loss type emanates from risks that produce aggregate yearly costs which are over time considered stable. The stability estimate is usually based on past experiences projected into the future. Year after year this type of loss shows little variation between the aggregate value of predicted losses and the aggregate of actual annual losses.√

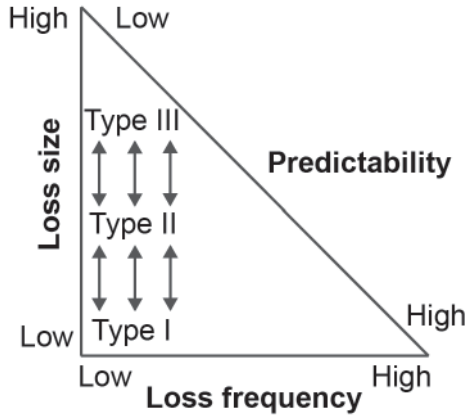
Type II losses

The second loss type emanates from risks that produce annual aggregate losses in excess of those associated with the first loss type. However, a company can absorb these losses within one year and remain a going concern. The maximum cost consequence of risk in this class varies according to the company's ability to absorb loss and the risk aversion attitude of its management. Risk aversion is defined as the reluctance of management to subject the company to the possibility of loss costs in excess of a planned or budgeted limit.√

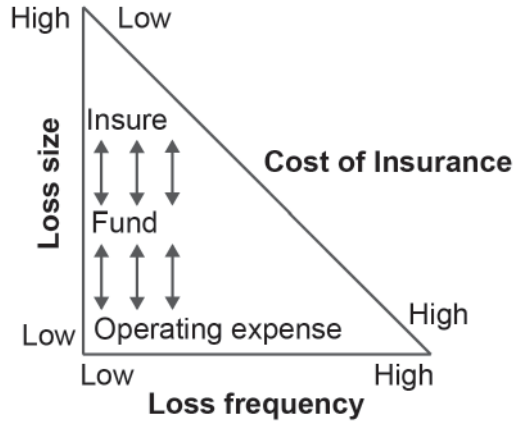
Type III losses

The third loss type covers losses which produce aggregate annual costs in excess of those in the first two loss types.√

The relationship between the severity and the frequency of losses and their insurability is depicted in the two diagrams below.



Loss types and predictability√√



Loss types and Insurance√√

The above two diagrams show that the cost of insuring the highly predictable losses (high frequency and low severity) is high. The main reason is the high cost associated with predictable losses. The insurance company has to recover an amount that is at least equal to the size of the loss plus an additional amount for profits and administrative costs. This boils down to what is referred to as “rand swapping” which is quite costly to the insured. By funding these losses from its own resources, the company saves a substantial amount of money. This is especially true if we take into account that these losses can run into millions of Rand to which insurance companies may add as much as 40%.√

In order to receive the marks for the graphs, you should have listed all the necessary details on the graphs.

Question 3 (5 marks)

A worker sustained lung cancer as a result of working in an asbestos plant. Explain whether the worker would have a claim under the **Personal Accident Section** of a policy.

Suggested solution:

Refer to Chapters 8 and 11 in the prescribed book.

The worker will not be able to claim from a Personal Accident policy in this case.√ Personal accident insurance compensates the insured, if he or she is injured or killed by violent, external and visible means as a direct result of an accident.√ There is no cover for illness.√ The worker will however be able to claim compensation in terms of the Compensation for Occupational Injuries and Diseases Act (COID) (130 OF 1993). Where the illness is a direct result from the negligence of the employer, the worker might also proceed with a liability claim against the employer.√

You will note that the solution to this question is relative concise when compared to that of question 4 that carry the same mark allocation. Question 3 is considered an application or insight question and students were required to use the theory and apply it to a practical scenario. The answer must include very specific information that would answer the question posed.

Question 4 (5 marks)

Use a **numerical example** to illustrate the difference between a straight and disappearing deductible.

Suggested solution:

Refer to Chapter 13 in the prescribed book.

A **straight deductible** applies to each and every loss and is subtracted before a loss payment is made. √

Example:

Mr A has a straight deductible of R1 500 for motorcar accidents. Mr A scratches his car while parking. The value of the damage is R1 000. In this case the value of the damage is less than the deductible payment and the insurer will not be liable for any payment. √

Mr B has a deductible of R 2 000 for motor vehicle accidents. He is involved in an accident and sustains damages to the value of R10 000. In this case the insurer will be liable for the amount in access of the deductible (R10 000 – R2 000 = R8 000). √

When a **disappearing deductible** is used, the size of the deductible decreases as the size of the loss increases. At a certain level of loss, the deductible disappear completely.√ The reduced deductible is calculated in terms of the following formula:

P = (L-D) X (1 + R)

Example:

Mr C has a policy with a R5 000 deductible and a recapture factor of 5%. He sustained a loss of R5 000. The insurer will pay (R50 000 – R5 000) x (1,05) = R47 250. The deductible is in effect reduced from R5 000 to only R2 250 which is R45 000 – R47 250.√

Keep in mind that without the recapture factor, the insured would have paid the full deductible of R5 000 and the insurer R45 000 of the loss.

4 CONCLUDING REMARKS

We trust that you have found the study of this module both interesting and rewarding. Please visit the discussion forums to gain insight in the experiences of fellow students.

We wish you all of the best with your preparation for the examination. Please do not hesitate to contact us if you have any difficulties with the study material for this module.

Best wishes

MRS CECILE DE SWARDT (AJH 5-115)
MS ZAKHIYYA YOUSUF (AJH 5-118)
DEPARTMENT OF FINANCE, RISK MANAGEMENT AND BANKING