CPA

Certified Public Accountant Examination

Stage: Intermediate I1.1

Subject Title: Managerial Finance

Revision Guide

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INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF RWANDA

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CONTENTS

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STUDY TECHNIQUE

What is the best way to manage my time?

- **Identify all available free time between now and the examinations.**
- **Prepare a revision timetable with a list of "*must do*" activities.**
- **Remember to take a break (approx 10 minutes) after periods of intense study.**

What areas should I revise?

- **Rank your competence from Low to Medium to High for each topic.**
- **Allocate the least amount of time to topics ranked as high.**
- **Allocate between 25% - 50% of time for medium competence.**
- **Allocate up to 50% of time for low competence.**

How do I prevent myself veering off-track?

- **Introduce variety to your revision schedule.**
- **Change from one subject to another during the course of the day.**
- **Stick to your revision timetable to avoid spending too much time on one topic.**

Are study groups a good idea?

- **Yes, great learning happens in groups.**
- **Organise a study group with 4 – 6 people.**
- **Invite classmates of different strengths so that you can learn from one another.**
- **Share your notes to identify any gaps.**

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EXAMINATION TECHNIQUES

INTRODUCTION

Solving and dealing with problems is an essential part of learning, thinking and intelligence. A career in accounting will require you to deal with many problems.

In order to prepare you for this important task, professional accounting bodies are placing greater emphasis on problem solving as part of their examination process.

In exams, some problems we face are relatively straightforward, and you will be able to deal with them directly and quickly. However, some issues are more complex and you will need to work around the problem before you can either solve it or deal with it in some other way.

The purpose of this article is to help students to deal with problems in an exam setting. To achieve this, the remaining parts of the article contain the following sections:

- Preliminary issues
- An approach to dealing with and solving problems
- Conclusion.

Preliminaries

The first problem that you must deal with is your reaction to exam questions.

When presented with an exam paper, most students will quickly read through the questions and then many will … **PANIC!**

Assuming that you have done a reasonable amount of work beforehand, you shouldn't be overly concerned about this reaction. It is both natural and essential. It is natural to panic in stressful situations because that is how the brain is programmed.

Archaeologists have estimated that humans have inhabited earth for over 200,000 years. For most of this time, we have been hunters, gatherers and protectors.

In order to survive on this planet we had to be good at spotting unusual items, because any strange occurrence in our immediate vicinity probably meant the presence of danger. The brain's natural reaction to sensing any extraordinary item is to prepare the body for 'fight or flight'. Unfortunately, neither reaction is appropriate in an exam setting.

The good news is that if you have spotted something unusual in the exam question, you have completed the first step in dealing with the problem: its identification. Students may wish to use various relaxation techniques in order to control the effects of the brain's extreme reaction to the unforeseen items that will occur in all examination questions.

However, you should also be reassured that once you have identified the unusual item, you can now prepare yourself for dealing with this, and other problems, contained in the exam paper.

A Suggested Approach for Solving and Dealing with Problems in Exams.

The main stages in the suggested approach are:

1. Identify the Problem
2. Define the Problem
3. Find and Implement a Solution
4. Review

1. Identify the Problem

As discussed in the previous section, there is a natural tendency to panic when faced with unusual items. We suggest the following approach for the preliminary stage of solving and dealing with problems in exams:

Scan through the exam question

You should expect to find problem areas and that your body will react to these items.

PANIC!!

Remember that this is both natural and essential.

Pause

Take deep breaths or whatever it takes to help your mind and body to calm down.

Try not to exhale too loudly – you will only distract other students!

Do something practical

Look at the question requirements.

Note the items that are essential and are worth the most marks.

Start your solution by neatly putting in the question number and labelling each part of your answer in accordance with the stated requirements.

Actively reread the question

Underline (or highlight) important items that refer to the question requirements. Tick or otherwise indicate the issues that you are familiar with. Put a circle around unusual items that will require further consideration.

2. Define the Problem

Having dealt with the preliminary issues outlined above, you have already made a good start by identifying the problem areas. Before you attempt to solve the problem, you should make sure that the problem is properly defined. This may take only a few seconds, but will be time well spent. In order to make sure that the problem is properly defined you should refer back to the question requirements. This is worth repeating: Every year, Examiner Reports note that students fail to pass exams because they do not answer the question asked. Examiners have a marking scheme and they can only award marks for solutions that deal with the issues as stipulated in the question requirements. Anything else is a waste of time. After you have re-read the question requirements ask yourself these questions in relation to the problem areas that you have identified:

Is this item essential in order to answer the question?

Remember that occasionally, examiners will put 'red herrings' (irrelevant issues) into the question in order to test your knowledge of a topic.

What's it worth?

Figure out approximately how many marks the problem item is worth. This will help you to allocate the appropriate amount of time to this issue.

Can I break it down into smaller parts?

In many cases, significant problems can be broken down into its component parts. Some parts of the problem might be easy to solve.

Can I ignore this item (at least temporarily)?

Obviously, you don't want to do this very often, but it can be a useful strategy for problems that cannot be solved immediately.

Note that if you leave something out, you should leave space in the solution to put in the answer at a later stage. There are a number of possible advantages to be gained from this approach:

1) It will allow you to make progress and complete other parts of the question that you are familiar with. This means that you will gain marks rather than fretting over something that your mind is not ready to deal with yet.

2) As you are working on the tasks that you are familiar with, your mind will relax and you may remember how to deal with the problem area.

3) When you complete parts of the answer, it may become apparent how to fill in the missing pieces of information. Many accounting questions are like jigsaw puzzles: when you put in some of the parts that fit together, it is easier to see where the missing pieces should go and what they look like.

3. Find and Implement a Solution

In many cases, after identifying and defining the problem, it will be easy to deal with the issue and to move on to the next part of the question. However, for complex problems that are worth significant marks, you will have to spend more time working on the issue in order to deal with the problem. When this happens, you should follow these steps:

Map out the problem

Depending on your preferred learning style, you can do this in a variety of ways including diagrams, tables, pictures, sentences, bullet points or any combination of methods. It is best to do this in a working on a separate page (not on the exam paper) because some of this work will earn marks. Neat and clearly referenced workings will illustrate to the examiner that you have a systematic approach to answering the question.

Summarise what you know about the problem

Make sure that this is brief and that it relates to the question requirements. Put this information into the working where you have mapped out the problem. Be succinct and relevant. The information can be based on data contained in the question and your own knowledge and experience. Don’t spend too long at this stage, but complete your workings as neatly as possible because this will maximise the marks you will be awarded.

Consider alternative solutions

Review your workings and compare this information to the question requirements. Complete as much of the solution as you can. Make sure it is in the format as stipulated in the question requirements. Consider different ways of solving the problem and try to eliminate at least one alternative.

Implement a solution

Go with your instinct and write in your solution. Leave extra space on the page for a change of mind and/or supplementary information. Make sure the solution refers to your workings that have been numbered.

4. Review

After dealing with each problem and question, you should spend a short while reviewing your solution. The temptation is to rush onto the next question, but a few moments spent in reviewing your solution can help you to gain many marks. There are three questions to ask yourself here:

Have I met the question requirements?

Yes, we have mentioned this already. Examiner Reports over the years advise that failure to follow the instructions provided in the question requirements is a significant factor in causing students to lose marks. For instance, easy marks can be gained by putting your answer in the correct format. This could be in the form of a report or memo or whatever is asked in the question. Likewise, look carefully at the time period requested. The standard accounting period is 12 months, but occasionally examiners will specify a different accounting period.

Is my solution reasonable?

Look at the figures in your solution. How do they compare relative to the size of the figures provided in the question?

For example, if Revenue were 750,000 and your Net Profit figure was more than 1 million, then clearly this is worth checking.

If there were some extraordinary events it is possible for this to be correct, but more than likely, you have misread a figure from your calculator. Likewise, the depreciation expense should be a fraction of the value of the fixed assets.

What have I learned?

Very often in exams, different parts of the solution are interlinked. An answer from one of your workings can frequently be used in another part of the solution. The method used to figure out an answer may also be applicable to other parts of your solution.

Conclusion

In order to pass your exams you will have to solve many problems. The first problem to overcome is your reaction to unusual items. You must expect problems to arise in exams and be prepared to deal with them in a systematic manner. John Foster Dulles, a former US Secretary of State noted that: *The measure of success is not whether you have a tough problem to deal with, but whether it is the same problem you had last year.* We hope that, by applying the principles outlined in this article, you will be successful in your examinations and that you can move on to solve and deal with new problems.

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Stage: Intermediate Level

Subject Title: I1.1 Managerial Finance
Examination Duration: 3 Hours

Assessment Strategy

Examination Approach
Some questions may be entirely discursive, while others will be both discursive and computational. Skills examined will include comprehension, detailed application, analysis, evaluation, synthesis, and effective communication skills in relation to the production of reports and memoranda for internal use. Managerial Finance is a core subject, and this is reflected by the limited choice in both sections of the examination paper. Students are expected to integrate and apply learning from this and other syllabi, as appropriate.

Examination Format
The assessment is by an unseen closed-book examination of 3 hours' duration. The paper is divided into two sections.
In Section A students are required to answer 3 questions, question 1 a compulsory 25 mark question, question 2 a compulsory 20 mark question and question 3 a compulsory 15 mark question.

Students have a choice of answering Part A or Part B of question 3.

In Section B students are required to answer 2 questions from 3. In summary, students are required to answer a total of 5 questions out of 6.

Marks Allocation	***Marks***
Section A	
Question 1	25
Question 2	20
Question 3 (Students have a choice, Part A or B must be answered)	15
Section B	
Question 4	20
Question 5 (Students have a choice, Part A or B must be answered)	20
	Total 100

Learning Resources

Core Texts

Arnold / Corporate Financial Management 4th Edition/ Pearson 2008 / ISBN 9780273725220
Drury / Management & Cost Accounting 7th ed / (Cengage) / 2007 / ISBN: 9781844805662 / ISBN 1844805662.

Manuals

I1.1 Managerial Finance manual – Institute of Certified Public Accountants of Rwanda

Useful Websites

(as of date of publication)

www.icparwanda.com
http://www.rra.gov.rw/
http://www.gfmag.com/
www.cfo.com -CFO.com
www.ifac.org/ - International Federation of Accountants.
www.ft.com - Financial Times.
www.wsj.com - The Wall Street Journal online.
www.investmentinternational.com - Investment International.

REVISION QUESTIONS AND SOLUTIONS

Stage: **Intermediate I1.1**

Subject Title: **Managerial Finance**

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Revision questions

1. **A** You have been summoned to a meeting with your new managing director. He states that as maximisation of the company's share price depends upon the level of earnings per share that is achieved, it is vital to improve profits next year. He gives you a list of suggested ways to achieve this. The list includes:

(i) Minimise capital investment to reduce depreciation charges.

(ii) Increase wages and salaries by less than the level of inflation and sell the land that is currently used as a staff sports field.

(iii) Reduce overdraft charges by delaying payments to creditors.

(iv) Delay expenditure on new equipment that would reduce pollution levels from the company's factory.

Requirement:

Prepare a memo to the managing director discussing the possible effects on relevant stakeholders of the managing director's suggestions and whether or not they are likely to result in an increased share price.

B. 'During the 2000's the key objective of the executive directors of companies that are listed on the Stock Exchange is to ensure that their respective companies survive so that they may keep their jobs.'

Requirement:

Discuss the validity of this statement and explain what financial or other factors are likely to influence executive directors' objectives.

C. Discuss whether or not the objectives of directors of a quoted company are likely to conflict with those of the company's shareholders.

D. Discuss the importance and limitations of ESOP's (Executive Share Option Plans) to the achievement of goal congruence within an organisation

E. (a) 'Managers and owners of businesses may not have the same objectives.'
Explain this statement, illustrating your answer with examples of possible conflicts of interest.

(b) In what respects can it be argued, that companies need to exercise corporate social responsibility?

(c) Explain the meaning of the term 'Value for Money' in relation to the management of publicly owned services/utilities.

2. **Silicon Limited** over the past 4 years has spent RWF 3,000 million on developing a new silicon chip and is faced with three mutually exclusive choices:

(1) It can manufacture the chip itself in which case the plant will cost RWF 5,000 million. This will be spent at the end of December 2007. Additional working capital of RWF 2,100 million will be required when production commences at the start of 2008. Sales and selling prices are expected to be as follows:

	2008	2009	2010	2011	2012
Number Sold – (000's)	100	100	100	80	80
Sales Prices (RWF'000 per unit)	120	120	120	100	90

Silicon usually depreciates plant of this type over 5 years using the straight line method and assumes a zero scrap value. Variable costs are expected to be RWF 65 per unit and attributable fixed costs, including depreciation, RWF 3,000 million per year.

(2) Sell the know-how to a major international firm for a single payment of RWF 3,100 million, receivable at the end of December 2007.

(3) Sell the know-how for a royalty of RWF 10,000 per unit. Anticipated sales of chips would be as shown above.

If choices (2) or (3) are taken then the company will not manufacture the chips itself. Silicon estimates that its weighted average cost of capital is 12%. You should assume that sales revenue and costs occur at the end of the year in which they arise. Ignore taxation.

Requirement:

(a) Calculate the cash flows relevant to a decision whether or not to manufacture the chips. You can ignore choices 2 and 3 for this part of the answer.

(b) Calculate the net present value of each option.

(c) What other factors should be taken into account before a decision is made? What would your decision be?

3. The management team of **Bryher Ltd** is considering the purchase of equipment to enable the corrosive waste produced by one of its existing manufacturing processes to be converted into a marketable product. At present the corrosive waste is removed by a firm and the contractual arrangements for the safe disposal of the waste will cost Bryher RWF 100,000 per year for each of the next four years. Early termination of the contract, which will be required if the waste is used for production, will cost RWF 60,000 immediately and this contract termination penalty will not be allowed as a tax deductible expense.

The machinery will cost RWF 400,000, financed entirely by a fixed interest 10% loan. At the end of year 4 the equipment will be sold for RWF 40,000; the dismantling, cleaning and selling costs will amount to RWF 30,000.

Availability of the waste product would restrict sales of the marketable product, all made on a cash basis, to RWF 450,000 for each of years 1 and 2 and to RWF 700,000 for each of years 3 and 4. The operating and other costs of the proposal are estimated at:

	Year 1	**Year 2**	**Year 3**	**Year 4**
	RWF '000	RWF '000	RWF '000	RWF '000
Labour costs	150	170	150	200
Additional materials used	60	80	170	170
Other expenses	80	90	110	140
Factory overhead	110	120	220	290
Loan interest	40	40	40	40
Depreciation	90	90	90	90
	530	590	780	930

All 'Other expenses' are caused by the proposed project and are paid in the years shown. Similarly, 'Labour costs' are incremental cash costs except that part of the costs for each of years 1 and 2 relate to persons currently employed by Bryher who are not fully utilised in productive work. The transfer of these employees to the proposed project is expected to reduce idle time payments by RWF 30,000 and RWF 20,000 for each of years 1 and 2.

Purchases of additional materials are for cash. Storage of materials will utilise space which would otherwise have been rented out for RWF 20,000 per year for years 2 and 3 only. Included in 'Additional materials used' are 1,000 units per year of material X at a cost of RWF 15 per unit; this is the price which Bryher has contracted to pay for each unit of the material. However, until the end of year 3, material X will be in short supply and any available quantities could be used elsewhere in Bryher to earn a contribution before tax of RWF 10 per unit in excess of cost. From year 4, material X will not be in short supply. No stocks of material X are ever held at year-ends.

'Factory overhead' is an apportionment of general factory overheads which, as a result of this venture, will increase in total only by RWF 60,000 per year for the additional insurance premiums relating to the hazards of handling the corrosive material.

It may be assumed that all cash flows relating to Bryher's activities which occur during, but not at the start of a year, actually occur at the year-end.

Bryher is subject to tax at a rate of 50% with a one-year delay. Capital expenditure is eligible for 100% first year allowances and sales proceeds of assets are subject to tax. Apart from the contract termination payment all operating expenses are tax deductible.

Bryher is a very profitable firm and can utilise all first year allowances in full at the earliest opportunity.

Requirement:

Using 15% as the appropriate after-tax discount rate within a net present value calculation, advise Bryher on the desirability of converting the corrosive waste into a marketable product.

To what amount could the contract termination payment become before your advice would change?

4. **Cong Ltd** has asked for your assistance to review a capital investment proposal. The proposal involves purchasing a three-year exclusive licence for the EAC to brew a well-established brand of Asian beer, called Cofisher.

Your review of the draft licence has noted that:

- The licence allows you to brew 4,000,000 bottles per annum.
- Cong Ltd's intention is to brew 75% of the permitted volume in Kigali and enter into a sub-licencing agreement with a brewery in Mombassa for the remaining volume (this is allowable under the terms of the licence).
- To purchase the licence for the three year period will cost Cong Ltd RWF 2,880,000.

Key elements of the business proposal put together by Cong Ltd's staff are:

- Each bottle will wholesale for RWF 2 and will cost RWF 0.50 to distribute. The brewing process taking place in Kigali will cost RWF 1 per bottle. Additional factory overheads will be incurred on the project costing RWF 100,000 per annum.
- Cong Ltd plans to spend RWF 500,000 immediately on an initial promotional drive. Thereafter, in year 1 it will spend RWF 500,000 and in year 2 this will reduce by RWF 100,000. It will not spend anything on promotion in the last year of the licence.
- The Mombassa based brewer has agreed to pay Cong Ltd a royalty of RWF 0.30 per bottle.
- The brewer will contribute a one off payment of RWF 60,000 in year 3 to Cong Ltd to help defray the promotional cost.

Other Information:

- Cong Ltd pays corporation tax at 15% one year in arrears. Licence payments are fully deductible. Corporation tax will not be refunded, instead payments are calculated on a cumulative liability/carry forward of tax losses basis.
- Cong Ltd's financial director has stated that investments of this type are only accepted if they achieve both a three-year payback and a minimum internal rate of return (IRR) of 11%.

Requirement:

Prepare a report for the Board of Cong Ltd. which:

1. Advises whether or not to accept the investment based on financial criteria alone. (16 marks)

2. Identifies four other qualitative factors which the management of Cong Ltd should consider before reaching their final decision. (8 marks)

Note: Presentation (1 mark)

[Total: 25 marks]

5. ARED LIMITED

Ared Ltd manufactures a single product. It is preparing monthly budgets for the six months from July to December. The following standard revenue and cost data are available:

Selling price	RWF 12.00 per unit
Materials	2 kg per unit at RWF 2.40 per kg
Labour	RWF 1.80 per unit
Direct expenses	RWF 1.20 per unit

Sales in June and July are forecast to be 10,000 units in each month. As a direct result of marketing expenditure of RWF 95,000 in August, sales are expected to be 11,000 units in August and to increase by 1,000 units in each month from September to December. Sales after December are expected to remain at the December level.

25% of sales are paid for when they occur and 75% of sales are paid for in the month following sale. Stocks of finished goods at the end of each month are required to be 20% of the expected sales for the following month. Stocks of materials at the end of each month are required to be 50% of the materials required for the following month's production.

Materials are paid for in the month following purchase. Labour and direct expenses are paid for in the month in which they occur. Overheads for production, administration and distribution will be RWF 34,000 per month, including depreciation of RWF 12,000 per month.

These overheads are payable in the month in which they occur. Ared Ltd has a RWF 750,000 bank loan at 8% per annum on which it pays interest twice per year, in March and September.

The cash balance at the end of June is expected to be RWF 50,000.

Requirement:

(a) Prepare the following budgets for Ared Ltd on a month by month basis for the six month period from July to December:

(i) Production budget (units);

(ii) Cash budget.

6. Capital Rationing

(a) Distinguish between **'hard' and 'soft' capital rationing**, explaining why a company may deliberately choose to restrict its capital expenditure.

(b) Filtrex Ltd is a medium-sized, all equity-financed, unquoted company which specialises in the development and production of water- and air-filtering devices to reduce the emission of effluents. Its small but ingenious R & D team has recently made a technological breakthrough which has revealed a number of attractive investment opportunities. It has applied for patents to protect its rights in all these areas. However, it lacks the financial resources required to exploit all of these projects whose required outlays and post-tax NPVs are listed in the table below. Filtrex's managers consider that delaying any of these projects would seriously undermine their profitability, as competitors bring forward their own new developments. All projects are thought to have a similar degree of risk.

Project	**Required Outlay**	**NPV**
	RWF	RWF
A	150,000	65,000
B	120,000	50,000
C	200,000	80,000
D	80,000	30,000
E	400,000	120,000

The NPVs have been calculated using as a discount rate the 18% post-tax rate of return which Filtrex requires for risky R & D ventures. The maximum amount available for this type of investment is RWF 400,000, corresponding to Filtrex's present cash balances, built up over several years' profitable trading. Projects A and C are mutually exclusive and no project can be subdivided. Any unused capital will either remain invested in short-term deposits or used to purchase marketable securities, both of which offer a return well below 18% post-tax.

Requirement:

(i) Advise Filtrex Ltd, using suitable supporting calculations, which combination of projects should be undertaken in the best interests of shareholders, and

(ii) Suggest what further information might be obtained to assist a fuller analysis.

(c) Explain how, apart from delaying projects, Filtrex Ltd could manage to exploit more of these opportunities.

7. FROG LIMITED

A client company Frog Limited has recently launched a new product, a porcelain doll. It is now 4th February 2008, a few days after Frog Limited's first month of production and sale of the doll. Frog Limited operates a standard marginal costing system.

The standard cost card for the porcelain doll is as follows:

Standard Cost Card – Porcelain Doll		
Direct Materials 2 Kg @ RWF 5 per Kg	=	RWF 10
Direct Labour 1 hour @ RWF 8 per hour	=	RWF 8
Variable Overhead 1 hour @ RWF 2 per hour	=	RWF 2
Standard Marginal Cost per Doll	=	RWF 20
Budgeted Selling Price per Doll	=	RWF 30
Standard Contribution per Doll	**=**	**RWF 10**

Frog Limited budgeted to produce and sell 10,000 dolls during January 2008. There was no opening or closing stocks of raw materials or finished goods.

The actual results for the month ended 31st January 2008 were as follows:

12,000 Dolls were produced and sold for a total of	RWF 336,000
22,000 Kgs of raw material were purchased and used costing	RWF 132,000
13,000 labour hours were worked costing RWF 7 per hour	
Variable overheads incurred totalled	RWF 26,000

A discussion with staff has indicated the following issues arose during January 2008 relating to the production of the dolls:

- As a result of market shortages, Frog Limited's buyers had to buy a more expensive grade of material than that incorporated into the standard cost
- Management had to employ semi-skilled workers during the month due to an inability to attract skilled workers for the RWF 8 hourly rate of pay offered
- A penetration price of RWF 28 was adopted for January 2008 to help achieve a successful market entrance

Management have asked you to present a report on the performance of the doll for the month ended 31st January 2008.

Requirement:

Prepare a month-end briefing note for the management of Frog Limited which:

- Presents an operating statement that reconciles the budgeted contribution for January 2008 to the actual profit

(14 Marks)

- Comments on the January 2008 performance and identifies the likely cause of the variances reported and recommend actions management may take to address the causes of the variances and improve performance in January 2008

(6 Marks)

[Total: 20 Marks]

8. (a) Explain, with the use of a numerical example, the meaning of the term **'cash operating cycle'** and its significance in relation to working capital management.

(b) **Dodgimotors Ltd** owns a total of ten franchises, in a variety of locations, for the sale and servicing of used cars. Dodgimotors operate different systems for banking of sales receipts, depending on the type of sale. Receipts from car sales are banked once a week on mondays, and receipts from car servicing work are banked twice a week on wednesdays and fridays. No banking facilities are available at the weekend i.e. Saturdays or Sundays. The sales mix (as a percentage of total revenue) is as follows:

- 62.5% second hand vehicles;
- 37.5% servicing.

Total sales for all business areas amounted to RWF 10 billion in the recent year. Dodgimotors pays interest at a rate of 8·5% per annum on an average overdraft of RWF 65 m, and the company's finance director has suggested that the company could significantly reduce the interest charge if all sales receipts were banked on the day of sale. All the garages are open every day except Sunday. Assume that the daily sales value (for both areas of business) is spread evenly across the week.

Requirement:

Calculate the value of the annual interest which could be saved if all ten franchises adopted the finance director's suggestion of daily banking.

(c) Using the example of a car dealership such as Dodgimotors, as given in (b) above, outline the advantages and disadvantages of centralisation of the treasury function.

9. Please find attached extracts from the Income and Expenditure and Balance Sheets of **NMH Limited** for the last two years. NMH Limited is a motor dealership. Motor manufacturers normally allow sixty days credit. The company has been aggressive in the strategic pursuit of growth over the last year.

Balance Sheet as at 31st December 2010 and 2011

	2010		**2011**	
Assets				
Non Current Assets (at NBV)				
Property & Plant (Showrooms)	300		530	
Other Assets	40		30	
Non Current Assets		340		560
Current Assets				
Inventories	700		1,650	
Trade Receivables	80		250	
Cash & Cash Equivalents	400		0	
Total Current Assets		1,180		1,900
Total Assets		1,520		2,460
Equity and Liabilities				
Equity attributable to equity holders				
Share capital		100		100
Other reserves (Retained Revenue Reserves)		260		880
		360		980
Non Current Liabilities				
Long term borrowings		400		100
Current Liabilities				
Trade Payables		380		1,000
Short term borrowings		0		100
Current portion of long term borrowings		380		280
Total Current Liabilities		760		1,380
Total Liabilities		1,160		1,480
Total Equity and Liabilities		1,520		2,460

	2010	**2011**
Revenue	3,600	6,400
Less: Cost of Sales	2,600	4,500
Gross Profit	1,000	1,900
Less: Expenses	780	1,280
Net Profit	220	620

Requirement:

Prepare a briefing note for NMH Limited's management on its working capital management during 2011.

Total: 15 Marks

10. It is the 1st September 2007, your client **CLG Limited's** Financial Director, Sylvia Laudenberg has just been informed that the finance manager of CLG Limited's Gikondo factory has gone on long-term sick leave. She is immediately concerned that the first draft budgets for the year ended 31st December 2008 for the Gikondo factory are due for submission by month end (30th September 2007). The Gikondo factory manufactures just one product, a wooden horse.

Sylvia has asked you to travel to Gikondo with the urgent brief of submitting a quarterly cash budget for the year ended 31st December 2008. You have spent the last two days at the Gikondo factory. During this time you have inspected the budget working files and had discussions with key staff. You have discerned the following information relevant to the preparation of the requisite budgets.

Review of Budgeting Working File

- The variable cost per unit is estimated at RWF 10
- Budgeted quarterly fixed production costs for the year 2008 are RWF 2,575,000. This includes annual depreciation on plant and machinery of RWF 100,000.

Discussions with Sales Manager

The sales demand projected for each quarter of 2008 are as follows:

Projected Sales Demand

Quarter	Demand (units)
1	40,000
2	52,000
3	48,000
4	54,000

- The price per horse has been set at RWF 120 for the first six months of the year, increasing by RWF 30 per unit for the remainder of the year 2008.
- Sales in both quarter 3 and 4 of 2007 are forecast at 35,000 horses per quarter at a sales price of RWF 100 each

Discussions with Production Manager

- Horses are manufactured on a JIT (just in time) basis
- Each horse requires two units of component Zee costing RWF 8 per component.
- Materials are purchased on a JIT basis
- Two hours of direct labour are required for the production of each unit of finished product. Labour currently costs RWF 10 per hour and is subject to a pay award of 20% effective from 1st October 2008.

Discussions with the Factory Bookkeeper

- All sales are on credit. Debtors take three months to settle their accounts.
- Materials are paid for six months after the date of purchase

- Wages and all overheads (fixed and variable) are paid in the quarter in which they are incurred
- On 1st January 2008 a motor vehicle will be purchased at a cost of RWF 50,000. It will be paid for in full in September 2008.
- Corporation Tax owing on 31st December 2007 must be paid in July 2008.

The Forecast Balance Sheet as at 31st December 2007 is as follows:

CLG Ltd – Gikondo Plant – Projected Balance Sheet as at 31st December 2007

	RWF
Assets	
Non Current Assets	
Land & Buildings	2,000,000
Plant & Equipment at Net Book Value	200,000
Current Assets	
Trade Receivables	3,500,000
Cash and Cash Equivalents	0
Total Assets	5,700,000
Equity and Liabilities	
RWF 10 Ordinary Shares	1,000,000
Accumulated profits	3,200,000
Current Liabilities	
Trade payables	1,350,000
Corporation Tax	70,000
Short Term Borrowings/Overdraft	80,000
Total Equity and Liabilities	5,700,000

Note:
The trade payable figures can be broken down as follows:
Quarter 3 purchases = RWF 650,000
Quarter 4 purchases = RWF 700,000

Requirement:

Prepare a **quarterly** cash flow forecast for year ended 31st December 2008

(19 Marks)
Presentation Mark (1 Mark)

Total: 20 Marks

Present Value Table

Present value of 1 i.e. $(1 + r)^{-n}$
Where r = discount rate
n = number of periods until payment

Discount rates *(r)*

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	0·980	0·961	0·943	0·925	0·907	0·890	0·873	0·857	0·842	0·826	2
3	0·971	0·942	0·915	0·889	0·864	0·840	0·816	0·794	0·772	0·751	3
4	0·961	0·924	0·888	0·855	0·823	0·792	0·763	0·735	0·708	0·683	4
5	0·951	0·906	0·863	0·822	0·784	0·747	0·713	0·681	0·650	0·621	5
6	0·942	0·888	0·837	0·790	0·746	0·705	0·666	0·630	0·596	0·564	6
7	0·933	0·871	0·813	0·760	0·711	0·665	0·623	0·583	0·547	0·513	7
8	0·923	0·853	0·789	0·731	0·677	0·627	0·582	0·540	0·502	0·467	8
9	0·914	0·837	0·766	0·703	0·645	0·592	0·544	0·500	0·460	0·424	9
10	0·905	0·820	0·744	0·676	0·614	0·558	0·508	0·463	0·422	0·386	10
11	0·896	0·804	0·722	0·650	0·585	0·527	0·475	0·429	0·388	0·350	11
12	0·887	0·788	0·701	0·625	0·557	0·497	0·444	0·397	0·356	0·319	12
13	0·879	0·773	0·681	0·601	0·530	0·469	0·415	0·368	0·326	0·290	13
14	0·870	0·758	0·661	0·577	0·505	0·442	0·388	0·340	0·299	0·263	14
15	0·861	0·743	0·642	0·555	0·481	0·417	0·362	0·315	0·275	0·239	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	0·812	0·797	0·783	0·769	0·756	0·743	0·731	0·718	0·706	0·694	2
3	0·731	0·712	0·693	0·675	0·658	0·641	0·624	0·609	0·593	0·579	3
4	0·659	0·636	0·613	0·592	0·572	0·552	0·534	0·516	0·499	0·482	4
5	0·593	0·567	0·543	0·519	0·497	0·476	0·456	0·437	0·419	0·402	5
6	0·535	0·507	0·480	0·456	0·432	0·410	0·390	0·370	0·352	0·335	6
7	0·482	0·452	0·425	0·400	0·376	0·354	0·333	0·314	0·296	0·279	7
8	0·434	0·404	0·376	0·351	0·327	0·305	0·285	0·266	0·249	0·233	8
9	0·391	0·361	0·333	0·308	0·284	0·263	0·243	0·225	0·209	0·194	9
10	0·352	0·322	0·295	0·270	0·247	0·227	0·208	0·191	0·176	0·162	10
11	0·317	0·287	0·261	0·237	0·215	0·195	0·178	0·162	0·148	0·135	11
12	0·286	0·257	0·231	0·208	0·187	0·168	0·152	0·137	0·124	0·112	12
13	0·258	0·229	0·204	0·182	0·163	0·145	0·130	0·116	0·104	0·093	13
14	0·232	0·205	0·181	0·160	0·141	0·125	0·111	0·099	0·088	0·078	14
15	0·209	0·183	0·160	0·140	0·123	0·108	0·095	0·084	0·074	0·065	15

Annuity Table

Present value of an annuity of 1 i.e. $\frac{1 - (1 + r)-n}{r}$

Where r = discount rate
n = number of periods until payment

Discount rates *(r)*

Periods (n)	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	
1	0·990	0·980	0·971	0·962	0·952	0·943	0·935	0·926	0·917	0·909	1
2	1·970	1·942	1·913	1·886	1·859	1·833	1·808	1·783	1·759	1·736	2
3	2·941	2·884	2·829	2·775	2·723	2·673	2·624	2·577	2·531	2·487	3
4	3·902	3·808	3·717	3·630	3·546	3·465	3·387	3·312	3·240	3·170	4
5	4·853	4·713	4·580	4·452	4·329	4·212	4·100	3·993	3·890	3·791	5
6	5·795	5·601	5·417	5·242	5·076	4·917	4·767	4·623	4·486	4·355	6
7	6·728	6·472	6·230	6·002	5·786	5·582	5·389	5·206	5·033	4·868	7
8	7·652	7·325	7·020	6·733	6·463	6·210	5·971	5·747	5·535	5·335	8
9	8·566	8·162	7·786	7·435	7·108	6·802	6·515	6·247	5·995	5·759	9
10	9·471	8·983	8·530	8·111	7·722	7·360	7·024	6·710	6·418	6·145	10
11	10·37	9·787	9·253	8·760	8·306	7·887	7·499	7·139	6·805	6·495	11
12	11·26	10·58	9·954	9·385	8·863	8·384	7·943	7·536	7·161	6·814	12
13	12·13	11·35	10·63	9·986	9·394	8·853	8·358	7·904	7·487	7·103	13
14	13·00	12·11	11·30	10·56	9·899	9·295	8·745	8·244	7·786	7·367	14
15	13·87	12·85	11·94	11·12	10·38	9·712	9·108	8·559	8·061	7·606	15

(n)	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%	
1	0·901	0·893	0·885	0·877	0·870	0·862	0·855	0·847	0·840	0·833	1
2	1·713	1·690	1·668	1·647	1·626	1·605	1·585	1·566	1·547	1·528	2
3	2·444	2·402	2·361	2·322	2·283	2·246	2·210	2·174	2·140	2·106	3
4	3·102	3·037	2·974	2·914	2·855	2·798	2·743	2·690	2·639	2·589	4
5	3·696	3·605	3·517	3·433	3·352	3·274	3·199	3·127	3·058	2·991	5
6	4·231	4·111	3·998	3·889	3·784	3·685	3·589	3·498	3·410	3·326	6
7	4·712	4·564	4·423	4·288	4·160	4·039	3·922	3·812	3·706	3·605	7
8	5·146	4·968	4·799	4·639	4·487	4·344	4·207	4·078	3·954	3·837	8
9	5·537	5·328	5·132	4·946	4·772	4·607	4·451	4·303	4·163	4·031	9
10	5·889	5·650	5·426	5·216	5·019	4·833	4·659	4·494	4·339	4·192	10
11	6·207	5·938	5·687	5·453	5·234	5·029	4·836	4·656	4·486	4·327	11
12	6·492	6·194	5·918	5·660	5·421	5·197	4·988	4·793	4·611	4·439	12
13	6·750	6·424	6·122	5·842	5·583	5·342	5·118	4·910	4·715	4·533	13
14	6·982	6·628	6·302	6·002	5·724	5·468	5·229	5·008	4·802	4·611	14
15	7·191	6·811	6·462	6·142	5·847	5·575	5·324	5·092	4·876	4·675	15

Suggested answers

1. A **Memo**

Whilst I agree that it is important to ensure that our share price is maximised, share price maximisation is dependent upon maximising the present value of future cash flows, not on maximising earnings per share (EPS) or profits. There is, of course, a correlation between EPS, profit and share price, but, as long as the stock market is efficient, short-term accounting measures are not the most important influence on share price. If the stock market is not efficient then short-term accounting measures might influence the company's share price. In an efficient market, in order to maximise share price the company should concentrate on undertaking capital investments with a positive net present value. Some of your suggestions might upset stakeholders and result in a reduction in share price. For example:

(i) Minimising capital investment to produce a short-term increase in accounting profit takes a short-term perspective and could mean ignoring excellent investment projects which would increase the value of the organisation. Shareholder wealth could be reduced as a result of such actions and employee remuneration could be lower than would be achievable with further investment.

(ii) Increasing wages and salaries by less than inflation could increase profits, but the detrimental effect on workforce morale might produce the opposite effect because of reduced efficiency. Conflict with trade unions could occur and some employees might seek employment elsewhere.

Disposal of the sports field could produce a very hostile response from staff.

(iii) There might be some scope for delaying payment to creditors but if this delay is significant, relations with creditors might be harmed and the company might face more stringent credit terms from suppliers when new orders are placed. Additionally, such a move could result in a lower credit rating and possibly higher costs of finance.

(iv) The company might have some flexibility to delay expenditure on pollution control equipment but we must ensure that we can still meet all government standards for pollution. There might be significant social costs. Delay might harm our reputation in the local community and with environmental pressure groups. The effect of adverse publicity could outweigh any savings from delaying expenditure.

I hope that this indicates some of the potential problems. I would be happy to discuss alternative ways of increasing the company's share price.

B. Many countries experienced an economic recession during part of the 1990s and 2008-2011, with high levels of corporate failure. Executive directors will normally strive to ensure that their company survives and that they keep their jobs, but this should not be their prime objective. In most listed companies the executive directors only own a small minority of the company's shares. Directors, as agents of the owners of the companies (primarily non-director shareholders - NDS), should act in the best interest

of such shareholders. There may be conflicts of objectives between NDS and directors. NDS will normally seek to maximise their wealth, often subject to satisfying secondary objectives such as environmental standards and social provision. Executive directors may have many objectives, including keeping their jobs, maximising salaries or 'perks,' maximising prestige, pensions or compensation agreements should they lose their positions.

Directors' objectives are influenced and constrained by many factors including:

(i) The provisions in the Memorandum and Articles of Association and any additional legal restrictions agreed between shareholders and directors.

(ii) Restrictive covenants imposed by providers of debt.

(iii) Stock Exchange regulations.

(iv) Restrictions on directors' loans and other financial transactions with the company.

(v) Internal & external auditors; audit committees chaired by non-executive directors.

(vi) Limited term appointments of directors.

Ensuring corporate survival may satisfy the majority of shareholders of companies that are in financial distress, but for profitable going concerns it might mean that relatively safe decisions are taken, which although maintaining corporate survival, do not maximise expected net present value or shareholder wealth. Remuneration schemes may be devised that reward directors according to corporate performance, especially share price linked performance. This is an attempt to ensure that goals consistent with the maximisation of shareholders' wealth exist between directors and NDS. If directors are going personally to benefit from good share price performance, e.g. through share option schemes, they are likely to be motivated to take decisions that will maximise share price. There have, however, been criticisms that many recent share option schemes have been too generous to directors.

If the market is efficient, or almost efficient, the decisions of directors, including investment decisions will be known to the market and share prices will move according to how market analysts and NDS regard the decisions. A decision that is sub-optimal, and is not using the company's resources in the most efficient way is likely to result in a fall in share price. This may increase the probability of a takeover. The fear of takeover is believed to be an incentive for managers to try and take the decisions that maximise shareholder wealth.

C. The main objective of shareholders is often assumed to be to seek the maximisation of their wealth, subject to taking an acceptable amount of risk. In practice shareholders may have multiple objectives which include social and environmental issues.

The objectives of directors do not automatically correspond with those of the shareholders. Directors may seek to maximise their own income and/or wealth, which could be at the expense of shareholders, to increase work related benefits such as cars and pension schemes, to increase power and prestige, or to generate job security. The

amount of risk that directors are prepared to take may significantly differ from the desired risk of shareholders, especially those shareholders who own a diverse portfolio.

To some extent the actions of directors should correspond to the objectives of shareholders who, at least in theory, have the right to replace directors if they are not satisfied with the directors' performance. In practice, unless major shareholders act in unison the removal of directors may not be easy. Directors may, however, be influenced by market forces to take actions that result in a high quality performance of the company. If they do not, and if the market in which they operate is at least reasonably efficient, the share price of the company will fall and the company will be more exposed to takeover bids, which could result in the directors losing their positions. If the market is not efficient, poor or self-motivated decision-making by directors may not feed quickly and accurately into changes in market price.

Shareholders may try to encourage the objectives of directors to correspond to their own through a variety of incentive schemes, such as performance related remuneration, or share option schemes. The idea is that the directors will benefit from the same positive corporate performance as the shareholders and, thus, have the incentive to take decisions which lead to the best possible performance.

D. Goal congruence refers to the situation where the goals of different groups coincide. In many companies there are potential conflicts of objectives between the owners of the company, the shareholders, and their agents, the managers of the company. Other interest groups such as creditors, the government, employees and the local community might also have conflicting objectives to the company's shareholders. One way by which managers, and sometimes employees in general, might be motivated to take decisions/engage in actions which are consistent with the goals of the shareholders is through ESOPs. ESOPs, however, will not assist in encouraging goal congruence between other interest groups and the shareholders and managers.

ESOPs allow managers to purchase a company's shares at a fixed price during a specified period of time in the future, usually a period of years. They are aimed at encouraging managers to take decisions which will result in high NPV projects, which will lead to an increase in share price and shareholder wealth. The managers are believed to seek high NPV investments as they, as shareholders, will participate in the benefits as share prices increase.

There is, however, little evidence of a positive correlation between share option schemes and the creation of extra share value. There is no guarantee that ESOPs will achieve goal congruence. Share options will only be part of the total remuneration package and may not be the major influence on managerial decisions. If share prices fall managers do not have to purchase the shares and the value of the option to buy shares becomes worthless or very small. This means that managers face less risk than shareholders as they have an option which may be exercised if things go well but may be ignored if things go badly. Shareholders have to face both circumstances.

Managers may be rewarded when share prices increase due to factors that have nothing to do with their managerial skills. Additionally, ESOP schemes often base reward in

part upon earnings per share, an accounting ratio which, at least in the short term, is subject to manipulation by managers to their advantage.

Although ESOPs may assist in the achievement of goal congruence they are by no means a perfect solution.

E. (a) It may be argued that managers and owners of a business may not have the same interests because of the divorce between ownership and control. In many organisations, the shareholders will have very little influence over the day to day operations and management of a business. Managers will be aware of the need to seek to maximise the wealth of their shareholders, but at the same time they may be equally concerned to serve their own needs/interests. For example, shareholders may be highly risk averse, looking only for one reasonable and steady income from their investment. By contrast, a manager may by nature be more of a risk taker, because he considers that his career may progress faster if he is successful in the risks taken. In such a scenario, if the manager follows his instincts in selecting business opportunities, then the shareholders' objectives are not being met. The reverse situation may be equally true, whereby shareholders believe that management are excessively cautious in their selection of business opportunities, but management are wary of taking risks as they wish to avoid any large scale losses which might threaten their personal position. In both instances there is a gulf between the objectives of the managers and owners.

Another example of where objectives might conflict is in the case of mergers and take-overs. If a company has been reporting poor results, and becomes the victim of a take-over bid, the shareholders are likely to be pleased as they will look to an increase in the value of their investment. In contrast, the managers of the victim company may well be very unhappy, as they sense the risk of redundancy. Williamson suggested that many of the aims of managers actually work in direct conflict with those of owners because managers look for perquisites and self-aggrandisement which add to company costs. Shareholders may be happy if managers drove Honda Civic as the company cars. The managers may well seek to have Mercedes instead! Similarly, having a large office and many staff to supervise is good for a manager's self-esteem, but they may not be essential to the efficient running of the business: owners may be better off without them.

One key area where owner-manager objectives may conflict is in terms of the time horizon used to judge success. Owners, especially institutions such as pension funds, look to the long-term in setting their objectives, whereas a manager may need to have short-term successes in order to further his/her career prospects.

(b) Corporate social responsibility can be defined in a number of ways, but the term refers, in general, to the ways in which a privately owned company needs to be aware of and respect the needs of the wider community. The responsibility to shareholders is reasonably clearly defined and monitored by the financial markets and company reporting systems. Corporate responsibilities to customers, employees, and the community at large are less likely to be well defined. A

company may be regarded as having responsibilities to its customers in terms of providing them with a quality product, at an appropriate price, which is supplied in a timely and efficient manner. The duty to the general public involves a responsibility not to endanger the public in any way, to respect the environment, and to support the local community where possible. Social responsibility also extends to creditors, who should expect to be paid accurately and promptly.

National and local governments are also affected by the activities of businesses and hence come under the remit of areas of social responsibility. Companies have a duty to pay their taxes as due, and comply with national and local laws e.g. planning/health and safety regulations. Lastly companies have a responsibility to take care of their employees, ensuring a safe working environment and paying fair wages.

In conclusion it is no longer sufficient for a company to think that it need only serve the interests of its shareholders. It is now regarded as good practice to look to the needs of the broader stakeholder group and so take on a wider social responsibility.

(c) At its simplest, 'Value for Money' (VFM) means getting the best possible service for the least possible cost. Public services are funded by the taxpayers and in seeking value for money, the needs of the taxpayer are being served, insofar as resources are being used in the best manner to provide essential services.

It is important to note that VFM does not mean lowest cost per se: it assesses cost in relation to the service provided. Three aspects of VFM are of relevance: efficiency, economy and effectiveness. Efficiency relates to the level of output generated by a given input. Reducing the input/output ratio is an indication of increased efficiency. Economy measures the cost of obtaining the required quality of inputs needed to produce the service. The aim is to acquire the necessary inputs at the lowest possible cost. Effectiveness measures the extent to which the service meets its declared objectives. For example, a refuse collection service is only effective if it meets its target of, say, weekly collections from domestic premises. The service is economic if it is able to minimise the cost per weekly collection and not suffer from wasted resources. The service is increasing its efficiency if it is able to raise the number of collections per vehicle per week for no change in cost.

2. Silicon Ltd

(a)

End of Year	2007	2008	2009	2010	2001	2002
No. sold 000's		100	100	100	80	80
Sales price RWF'000 per unit		120	120	120	100	90
Variable price RWF'000 per unit		65	65	65	65	65
Contribution RWF'000 per unit		55	55	55	35	25
	RWF m	RWF m	RWF m	RWF m	RWF m	RWF m
Total contribution		5,500	5,500	5,500	2,800	2,000
Less fixed costs		(2,000)	(2,000)	(2,000)	(2,000)	(2,000)
Plant	(5,000)					
Working capital	(2,100)					2,100
Net cash flow	(7,100)	3,500	3,500	3,500	800	2,100

(b)

Net cash flow	(7,100)	3,500	3,500	3,500	800	2,100
Discount factor	1.00	0.89	0.80	0.71	0.64	0.57
Present value	(7,100)	3,115	2,800	2,485	512	1,197
Net Present Value - RWF m	3,009					
Single Payment						
Net Present Value - RWF m	3,100					
Royalty						
Royalty – RWF'000 per unit		10	10	10	10	10
No. sold 000's		100	100	100	80	80
Total Royalty - RWF m		1,000	1,000	1,000	800	800
Discount factor		0.89	0.80	0.71	0.64	0.57
Present value - RWF m		890	800	710	512	456
Net Present Value – RWF m	3,368					

(c) There are a number of other factors which should be considered before a choice between the three alternatives is made. Firstly the company should consider its overall strategy. Has it a policy to license its know-how rather than to use it in its own production? Secondly, it should consider carefully the impact of any decision to sell its know-how on the employment prospects within the firm and on the morale of its employees. Thirdly it should assess any other financial factors which have not been included in the analysis. For example no allowance has been made in the question for taxation or inflation.

From a purely financial viewpoint the royalty option has the highest net present value of just over RWF 3,300 million. However it is more risky that the down-payment whose net present value is RWF 3,100 million. The manufacture option with virtually the same net present value of just over RWF 3,000 m does not look particularly

attractive in view of its risks. Probably the best option would be for Silicon to try to negotiate a minimum royalty payment. If this is not possible, the down-payment option appears to be marginally the most attractive choice.

3 Bryher Ltd

	Year 1	Year 2	Year 3	Year 4
	RWF '000	RWF '000	RWF '000	RWF '000
Sales	450	450	700	700
Labour costs (note 1)	120	150	150	200
Materials used	60	80	170	170
Loss on material X (note 2)	10	10	10	-
Other expenses	80	90	110	140
Insurance	60	60	60	60
Loss of rent	-	20	20	-
	330	410	520	570
Profit	120	40	180	130
Corporation Tax @ 50%	60	20	90	65

Notes:

(1) Labour costs are reduced by RWF 30,000 and RWF 20,000 in each of years 1 and 2. These amounts will be paid by Bryher whether or not the project is undertaken and are therefore not incremental costs of the project.

(2) 1,000 units @ RWF 10 per unit.

Incremental Cash Flows

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	RWF '000	RWF '000	RWF '000	RWF '000	RWF '000	RWF '000
Cost of machinery and tax	(400)	200				
Net salvage value and tax					10	(5)
Incremental operating profits		120	40	180	130	
Tax			(60)	(20)	(90)	(65)
Contract termination	(60)					
Contract payments saved		100	100	100	100	
Tax on contract payments			(50)	(50)	(50)	(50)
Net cash flows	(460)	420	30	210	100	(120)

	Cash Flows	D.F. @ 15%	PV
	RWF '000		RWF '000
Year 0	(460)	1.000	(460.00)
Year 1	420	0.870	365.40
Year 2	30	0.756	22.68
Year 3	210	0.658	138.18
Year 4	100	0.572	57.20
Year 5	(120)	0.497	(59.64)
			63.82

The net present value is RWF 63,820 and the project is worthwhile. Therefore, Bryher should convert the corrosive waste into a marketable product.

The contract termination payment could increase by RWF 63,820 i.e. to RWF 123,820, before the above advice would change.

4. Report

To: Board of Directors, Cong Ltd

From: A.N. Other, Financial Consultant

Date: 1st September 2005

Subject: Financial Review of Licence Proposal

Introduction
This report sets out the results of the financial evaluation and identifies the wider issues to consider prior to making the decision whether or not to purchase the licence for Cofisher beer.

Approach
The report uses information obtained from the draft licence agreement and information provided by your business analysts.

Given that the proposal is for three years the financial evaluation must consider the time value of money. To take into account the time value of money I have used a mathematical technique called discounting. This involves discounting all future cash flows back to their present value.

Financial Analysis
Please see attached Appendix 1 and 2, which set out the detailed calculations. The results can be summarised as follows:

- Payback Period = 2.5 Years
- Internal Rate of Return = 10.3%

Recommendation
Based solely on the above financial criteria the proposal should be rejected as it does not achieve the required internal rate of return of 11%. Please note that the project meets the criterion to payback within three years.

Other Considerations
Before arriving at a final decision the following qualitative factors should be considered:

- Has Cong Ltd an option to extend the licence after the three years?
- What competitor beers are on/likely to reach the market over the three years period of the licence?
- Have we the necessary skills/abilities to brew the beer to the quality levels expected?
- How will Rwandan customers' tastes and preferences impact on the likely demand for the beer?

- What is the intention of the Asian company in relation to serving the Rwandan market after the three year period e.g. will it be sold to a competitor, do they intend to brew themselves?
- How will the beer impact on our present products?
- What laws are we to use to enforce the licence - Rwandan or Indian?
- How reliable is the quality of the Mombassa brewer?

Conclusion

On strict financial criteria the proposal must be rejected. However, there may be more commercial reasons to accept the proposal.

Appendix 1 – Internal Rate of Return

	0 RWF '000	**1** RWF '000	**2** RWF '000	**3** RWF '000	**4** RWF '000
Licence Purchase	-2,880				
Net contribution Kigali		1,500	1,500	1,500	
Royalty Mombassa brewer		300	300	300	
Fixed Factory Costs		-100	-100	-100	
Promotional Spend	-500	-500	-400		
Contribution Mombassa brewer				60	
Tax Payable				0	-132
Net Annual Cash Flow	-3,380	1,200	1,300	1,760	-132
Discount Factor 10%	1.0	.9090	.8260	.7510	.6830
Present Value	-3,380	1,091	1,074	1,322	-90
Net Present Value +16					
Discount Factor 12%	1.0	.8930	.7970	.7120	.6360
Present Value	-3,380	1,072	1,036	1,253	-84
Net Present Value -103					

IRR = 10% + 16/(16+103) x (12%-10%) = **10.27%**

Appendix 2 - Payback Period

	0	**1**	**2**	**3**	**4**
Cumulative Cash Flow	-3,380	-2,180	-880	880	748

Payback Period is 2.5 years. i.e. (2 years + (880/1760 x 12 months)

Note 1: Cash contribution per bottle (RWF 2-RWF 1-RWF 0.5) = RWF 0.50 x 3m bottles = RWF 1,500,000 p.a.

Note 2: Royalty from Mombassa = RWF 0.3 per bottle x 1m bottles = RWF 300,000 p.a.

Corporation Tax Computations

	0	1	2	3	4
Net Cash Flow (above)	-3,380	1,200	1,300	1,760	
Cumulative Taxable Profits	-3,380	-2,180	-880	880	
Taxable profits	0	0	0	880	
Taxation @ 15%				0	132

5. ARED LIMITED

Ared Ltd: Production budget for 6 months to end of December

		July	Aug	Sept	Oct	Nov	Dec
Sales	Units	10,000	11,000	12,000	13,000	14,000	15,000
Stock increase	Units	200	200	200	200	200	0
Production	Units	10,200	11,200	12,200	13,200	14,200	15,000
Receipts							
Cash sales	RWF'000	3,000	3,300	3,600	3,900	4,200	4,500
Credit sales	RWF'000	9,000	9,000	9,900	10,800	11,700	12,600
Total receipts	RWF'000	12,000	12,300	13,500	14,700	15,900	17,100
Payments							
Materials	RWF'000	4,848	5,136	5,616	6,096	6,576	7,008
Labour	RWF'000	1,836	2,016	2,196	2,376	2,556	2,700
Direct expenses	RWF'000	1,224	1,344	1,464	1,584	1,704	1,800
Fixed overheads	RWF'000	2,200	2,200	2,200	2,200	2,200	2,200
Advertising	RWF'000		9,500				
Interest	RWF'000			3,000			
		10,108	20,196	14,476	12,256	13,036	13,708
Net Cash flow	RWF'000	1,892	-7,896	-976	2,444	2,864	3,392
Opening balance	RWF'000	5,000	6,892	-1,004	-1,980	464	3,328
Closing Balance	RWF'000	6,892	-1,004	-1,980	464	3,328	6,720

Workings

		July	Aug	Sept	Oct	Nov	Dec
Sales (units) 1		10,000	11,000	12,000	13,000	14,000	15,000
Sales price (RWF)		12	12	12	12	12	12
Sales revenue			13,200	14,400	15,600	16,800	18,000
	RWF'000	12,000					

Calculation of sales receipts

Sales revenue		12,000	13,200	14,400	15,600	16,800	18,000
Cash sales (25%)	RWF'000	3,000	3,300	3,600	3,900	4,200	4,500
Credit sales (75%)	RWF'000	9,000	9,900	10,800	11,700	12,600	13,500

Calculation of Purchases

		June	*July*	*Aug*	*Sept*	*Oct*	*Nov*	*Dec*
Production	units	10,000	10,200	11,200	12,200	13,200	14,200	15,000
Materials for production	Kg	20,000	20,400	22,400	24,400	26,400	28,400	30,000
	RWF'000	4,800	4,896	5,376	5,856	6,336	6,816	7,200
Half delivered in month	RWF'000	*2,400*	2,448	2,688	2,928	3,168	3,408	3,600
Closing stock	RWF'000	*2,448*	*2,688*	*2,928*	*3,168*	*3,408*	*3,600*	
Total purchases in month	RWF'000	*4,848*	5,136	5,616	6,096	6,576	7,008	

Payable in		*July*	*Aug*	*Sept*	*Oct*	*Nov*	*Dec*	
Labour costs	RWF		180.00	180.00	180.00	180.00	180.00	180.00
Materials	Kg		2.00	2.00	2.00	2.00	2.00	2.00
Cost per Kg	RWF'000		*2.40*	*2.40*	*2.40*	*2.40*	*2.40*	*2.40*
Direct expenses per unit	RWF'000		0.12	0.12	0.12	0.12	0.12	0.12
cash fixed o/heads RWF'000 3,400 less Dep'n of RWF'000 1,200 non cash item			2,200	2,200	2,200	2,200	2,200	2,200

6. (a) **Hard capital rationing** applies when a firm is restricted from undertaking all apparently worthwhile investment opportunities by external factors over which it has no control. These may include government monetary restrictions and the general economic climate, e.g. a depressed stock market precluding a rights issue of ordinary shares.

Soft capital rationing applies when a company decides itself to limit the amount of capital expenditure which it is prepared to authorise. The capital budget becomes a control variable which the company may relax if it chooses. Segments of divisionalised companies often have their capital budgets imposed by the main board of directors.

A company may purposely curtail its capital expenditure for a number of reasons:

It may consider that it has insufficient management expertise to exploit all available opportunities without jeopardising the success of new and on-going operations.

It may be deliberate policy to restrict the capital budget to concentrate management attention on generating the very best and most carefully analysed proposals. Self-imposed capital rationing may be an exercise in quality control.

- Many companies adopt the policy of restraining capital expenditure to the amounts which can be generated by internal resources (in reality, cash flow). Reluctance to use the external capital markets may be due to:
- a risk-averse attitude to financial gearing, possibly because of the operating characteristics of the industry, e.g. high operating gearing in a cyclical industry.
- a reluctance to issue equity in the form of a rights issue, for fear of diluting earnings, or
- in the case of an unlisted company, reluctance to seek a quotation owing to the time and expense involved and the dilution of ownership.

(b) (i) Assuming Filtrex wishes to maximise the wealth of its shareholders, it will seek the set of investment projects with the highest combined NPVs.

As a first approximation it may examine the projects ranked according to their estimated NPVs and select those with the highest NPVs, consistent with the budget limitation. However, this would confine the programme to project E alone, which apart from losing any benefits of diversification, is a solution which can be improved upon because it overlooks the relationship between the NPV itself and the amount of capital required to yield the estimated NPV. Under capital rationing, it is often considered desirable to examine the productivity of each RWF of scarce capital invested in the various projects. This information is given by the **profitability index (PI)**. The ranking of the five projects according to their PIs is:

A 65/150 = 0.43

B	50/120	=	0.42
C	80/200	=	0.40
D	30/80	=	0.37
E	120/400	=	0.30

Moving down the ranking, Filtrex would select projects A and B, but then, due to indivisibility and the fact that projects A and C are mutually exclusive, it would have to depart from the rankings and move down to D. The remaining project E is too demanding of capital.
The selected programme of ABD would require an outlay of RWF 350,000 and generate an NPV of RWF 145,000. RWF 50,000 of scarce capital would remain unspent and, according to the stated policy, would be invested in short-term assets. Although of low risk, these offer a return less than the 18% required by shareholders. Consequently it might be preferable to return this unspent capital to shareholders in the form of a dividend or share repurchase, if shareholders are able to invest for higher returns in alternative activities. Liaison with major shareholders may be required to determine their preferences.

It is possible to improve on both of the previous selections by trial and error in an attempt to utilise the whole of the capital budget. The optimal selection is BCD which offers a joint NPV of RWF 160,000. However, even this result is suspect as it relies on evaluating the projects at the rate of return required in the absence of rationing, in this case 18% post-tax. This neglects the impact of capital rationing on the cost of capital - if apparently worthwhile projects are rejected, there is an opportunity cost in the form of the returns otherwise obtainable on the rejected projects. Projects should be evaluated at the discount rate reflecting the rate of return on the best of the rejected projects. Unfortunately, until the evaluation and selection is made, this remains an unknown! It would be helpful to find the IRR for each project.

(ii) In addition to IRRs, other useful information might include:

Whether the rationing is likely to apply over the long-term, in which case, projects can be postponed, and the impact of postponement on profitability. If projects can be postponed, it may be desirable for Filtrex to select projects in the base period offering a rapid return flow of cash in order to provide funds to enable investment in postponed projects in the next time period. In other words, it would be helpful to examine the cash flow profiles of these projects and hence their rates of payback.

The degrees of risk: It is unlikely that all projects have a similar degree of risk in practice, especially for the types of new product development planned by Filtrex. A capital-constrained company may use its limited access to finance to justify rejecting a high-risk activity, especially if it is reliant on subsequent cash flows to finance postponed projects.

What is the likelihood of obtaining marginal supplies of finance and on what terms?

There are two basic ways in which a company in Filtrex's position might still manage to exploit more projects. It can involve other parties in the project, or it can seek outside capital.

Sharing projects:
To the extent that some part of the project(s) still require further development, e.g. design and market research, some of this work can be subcontracted to specialist agencies who may be able to perform the work at lower cost, or even to take payment out of the project cash flows.

The production and/or sale of the products can be licensed or franchised to another party, with Filtrex arranging to receive a royalty or a percentage of sales. This is particularly appropriate for overseas activities.

A joint venture could be mounted with a competitor, although for commercial reasons it is often safer to arrange such alliances with companies outside the industry, or with overseas companies wishing to penetrate the local market.

The patent rights to one or more products could be sold and the purchaser allowed to develop the projects.

Raising external finance:
Some marginal finance could be squeezed out of more intensive use of working capital, although this could be counterproductive e.g. reducing credit periods for customers may lose sales.

Some equipment could be leased.

If Filtrex has assets of sufficient quality, it may be possible to raise a mortgage or issue debentures secured on these.

Alternatively, good-quality property assets could be sold to a financial institution and their continued use secured via a leaseback arrangement.

Filtrex might approach official sources of aid such as a regional development agency, if relevant, or perhaps the foreign investment bank.

Filtrex might approach a venture capitalist which specialises in extending development capital to small to medium-sized firms. However, they may require an equity stake and possibly insist on placing an appointee on the board to monitor their interests.

Filtrex may decide to seek a Stock Exchange quotation. However, this would be time-consuming and costly, and involve releasing equity to a wider body of shareholders.

7. FROG LIMITED

To: Board of Directors, Frog Limited
From: A. Hobbs, Accountant
Subject: Porcelain Doll – Performance Review for Month Ended January 2008
Date: 8th February 2008

Introduction
The purpose of this note is to brief management on the financial performance of the porcelain doll for the month ended January 2008.

Performance Review – Porcelain Doll – January 2008

Overview
During January 2008 Frog Limited earned RWF 13,000 less contribution than budgeted from producing and selling the porcelain doll. Full details of performance are provided in the following operating statement which reconciles the budgeted contribution for the month to the actual contribution achieved for the month.

Frog Limited - Operating Statement Month Ended January 2008

		Variances		
Details	**Note**	**Favourable**	**Adverse**	**Total**
Budgeted Contribution	1			**100,000**
Variances				
Sales Price	2		-24,000	
Sales Volume	3	20,000		
Direct Materials Price	4		-22,000	
Direct Materials Usage	5	10,000		
Direct Labour Rate	6	13,000		
Direct Labour Efficiency	7		-8,000	
Variable Overhead Expenditure	8	0	0	
Variable Overhead Efficiency	9		-2,000	
Sub Totals		43,000	-56,000	
Net Variance				-13,000
Actual Contribution	**10**			**87,000**

Commentary on Performance

Volume Increases - RWF 20,000 additional contribution
12,000 dolls were sold, a 2,000 increase on the budgeted sales. As a direct result Frog Ltd. earned RWF 20,000 additional contribution above that budgeted. A major contributory factor in achieving the sales volume increase is likely to be that we sold each doll at RWF 2 less than budgeted.

Labour Rate Savings - RWF 13,000 saving

We actually paid RWF 7 per labour hour. This was RWF 1 lower than the budgeted hourly rate. The total saving as a result was RWF 13,000 favourable. This is likely to be as a result of employing semi-skilled staff.

Efficient Direct Materials Usage - RWF 10,000 saving
An average of 1.83kg (22,000kg/12,000 dolls) of direct material was used to produce each doll. This compares favourably with the standard expected input of 2kg per doll. The resulted in a saving of 2,000 kgs/RWF 10,000. It is likely that this variance is a direct result of buying a higher grade material.

Adverse Performance
Inefficient Labour Efficiency - RWF 8,000 overspend.
Our direct labour was inefficient. We worked 1,000 more hours than expected, resulting in a labour efficiency overspend of RWF 8,000. This is likely to be as a result of employing semi-skilled staff. As a direct result of this inefficiency additional variable overhead costs were incurred, resulting in an additional overspend of RWF 2,000.

Direct Materials Price - RWF 22,000 overspend.
The average cost per kg. of direct material purchased was RWF 6. This represents a RWF 1 increase on the budgeted cost of RWF 5. The impact of this cost increase was an overspend of RWF 22,000. The likely reason is that a higher grade of material was used with a consequent higher cost. This was due to unavoidable reasons as there was a market shortage of the material planned to be used in the standard cost.

Sales Price - RWF 24,000 adverse
Each doll was sold at RWF 28. This is RWF 2 less per doll than budgeted. This deliberate price reduction was required in order to achieve market penetration for the new product. As a direct result we under-recovered RWF 24,000 in income for the month. This price reduction is likely to have been a major contributory factor in the ability to sell 2,000 more dolls than budgeted for the month.

Recommended Actions
- Management should send a memo to all sales staff recognising their effort during the month in achieving 2,000 extra unit sales.
- Management must attempt to employ skilled labour in future months to reduce the efficiency overspends.
- Management should revert to the original standard material.

Conclusion
January 2008 has been a month in which actual contribution fell short of budgeted contribution. The main cause of this improvement has been the increased unit sales. However, there are a number of cost and efficiency overspends which management must address urgently in order to correct performance over the coming months.

Frog Limited : Supporting Notes

Note 1) Budgeted Contribution

Budgeted Unit Sales * Standard Contribution Per Unit
10000 * 10 = 100000

Note 2) Sales Price Variance

(Actual Unit Price - Budgeted Unit Price) * Actual Units Sold
(28 - 30) * 12000 = -24000 Adverse

Note 3) Sales Volume Variance

(Actual Units Sold - Budgeted Unit Sales) * Standard Profit Per Unit
(12000-10000) * 10 = 20000 Favourable

Note 4) Direct Materials Price Variance

(Standard Unit Cost - Actual Unit Cost) * Actual Units Purchased
(5 - 6) * 22000 = -22000 Adverse

Note 5) Direct Materials Usage Variance

(Standard Unit Usage (for the actual level of production)- Actual Units Used) * Standard Cost Per Unit
(24000 - 22000) * 5 = 10000 Favourable

Note 6) Direct Labour Rate Variance

(Standard Hourly Rate - Actual Rate Per Hour) * Actual Hours Worked
(8 - 7) * 13000 = 13000 Favourable

Note 7) Direct Labour Efficiency Variance

(Standard Hours (for the actual level of production)- Actual Hours Worked) * Standard Rate Per Hour
(12000 - 13000) * 8 = -8000 Adverse

Note 8) Variable Overhead Expenditure Variance

(Standard Hourly Cost - Actual Cost Per Hour) * Actual Hours Worked
(2 - 2) * 13000 = 0

Note 9) Variable Overhead Efficiency Variance

(Standard Hours (for the actual level of production)- Actual Hours Worked) * Standard Cost Per Hour
(12000 - 13000) * 2 = -2000 Adverse

Note 10) Actual Contribution

Actual Sales Revenues		336,000
Less: Actual Costs Incurred		
Direct Materials	132,000	
Direct Labour	91,000	
Variable Overheads	26,000	
Total Costs		249,000
Actual Contribution		**87,000**

8. (a) The working capital cycle (**or cash operating cycle**) is the length of time between when a business makes payments to its suppliers for raw materials and goods entering into stock, and when the business receives payment for those resources from its customers. The number of days in the cycle is equal to:

Debtor days + Stock days (Finished goods + WIP + raw materials) – Creditor days

For example, if analysis of company financial statements revealed the following statistics:

	Days
Debtors	45
Raw material stocks	20
Work in progress	25
Finished goods	15
Creditor days	50

Working capital cycle = 45 + 20 + 25 + 15 – 50 = 55 days

The number of days in the cycle represents the length of time for which the business requires funding for working capital if it is to continue trading. As the length of the cycle increases, therefore, the amount of working capital required by the business also increases.

Working capital may be funded from either long-term or short-term sources of finance, but as a general rule it is argued that 'permanent' working capital should be paid for by long-term sources and 'temporary' working capital by short-term sources. Debentures are an example of a long-term source of funds, and an overdraft facility is an example of a short-term source. The significance of the cycle for working capital management lies in the fact that if a company can reduce the length of the cycle, it can lower its funding needs, and this can in turn increase the potential ROCE. The length of the operating cycle can be reduced in a number of ways, which vary from the very simple to the sophisticated. The use of tight credit controls, Just in Time stock management and debt factoring are various examples of ways in which the cycle can be reduced.

(b) **Dodgimotors**

Annual sales RWF 10 billion, split as follows:
Second hand vehicles (62.5%) RWF 6.25 billion
Servicing (37.5%) RWF 3.75 billion

Second Hand Vehicle Sales

Weekly value RWF 6·25bn/52 = RWF 120.2m
Daily value RWF 120.2m / 6 (working days) = RWF 20.032m

The cost of not banking receipts can be calculated daily, with the maximum delay equalling 6 days, for sales made on Tuesday but not banked until the following Monday. The total days delay in any one week is thus equal to:

Sales	**Delay**
Monday	Nil
Tuesday	6 days
Wednesday	5 days
Thursday	4 days
Friday	3 days
Saturday	Nil
Total	**18 days**

Weekly cost of delay = 18 x RWF 20.032m x 8.5%/365 = RWF 83,970
Annual cost of the delay = RWF 83,970 x 52 = **RWF 4.366m**

Vehicle Servicing
Weekly sales value RWF 3.75b/52 = RWF 72.115m
Daily sales value RWF 72.115m /6 = RWF 12,.019m

Total days banking delay:

Sales	**Delay**
Monday	2 days
Tuesday	1 day
Wednesday	Nil
Thursday	1 day
Friday	Nil
Saturday	2 days
Total	**6 days**

Weekly cost of delay = 6 x RWF 12.019m x 8.5%/365 = RWF 16,794

Annual cost of delay = 52 x RWF 16,794 = **RWF 873,288**

Total cost of delays in banking both sets of receipts
= RWF 4.366m + RWF 0. 874m = **RWF 5.240m**

Note: The calculation assumes that Dodgimotors Ltd is operating on an overdraft on every working day of the year. In practice, it is likely that the level of overdraft will vary throughout the year, and when the account is in credit, the company will gain no interest saving benefit from the faster banking of receipts.

(c) Management of the banking side of a business' operations is just one of the functions of the treasury department. Treasury is also responsible for the raising of short and long-term finance, the control of cash and investment of cash surpluses, foreign currency risk management, management of capital investment and organisation of insurance for company assets. When treasury activities are

centralised, these activities become the sole responsibility of the central unit, and local divisions of a business simply hold cash for day to day transactions, and do not get involved in raising finance, hedging foreign exchange risk etc.

The primary advantage to be gained from centralisation of treasury is the increased control that it offers. For a company such as Dodgimotors, the need is to maximise overall corporate profit. This means, for example, that if one dealership is currently running a cash surplus, the treasury function can then use that money to fund any of the dealerships which may be running a cash deficit. In this way the need to look for external funding is reduced or eliminated. Consequently, it is argued, a centralised treasury can save a company money via reduced borrowing requirements and lower bank charges. Lower banking costs may also be available via the use of the central department to negotiate finance when required. If, for example, a dealer wished to acquire and develop a new retail site then if the organisation was decentralised, the funding terms would be negotiated between the individual dealership and the local bank. If all funding requirements are dealt with via the central treasury, it is likely that the terms available will be preferable because the overall account will be larger, and the company regarded as a more 'important' bank customer. A secondary benefit of centralisation is the elimination of the need for each element within a group company to employ staff with treasury skills. This reduces duplication, and should work to raise the overall standard of treasury provision as the skills and experience of the centre's staff are likely to be greater than those of staff working in the smaller individual divisions. For some businesses which buy/sell in foreign markets, the role of central treasury in managing the process of hedging foreign exchange risk can be very important. Dodgimotors is unlikely to require such hedging, but if they were then a central department can offer the advantage of expertise that is often scarce at a local level.

The main disadvantage of centralisation of treasury activities is that it can lead to slower decision making, and the potential loss of local market advantage as a result. If a local manager wishes to obtain funds to buy assets e.g. second hand car stock, he may have to put a business case to head office to obtain the funds. In the time taken to process the application, the buying opportunity may disappear, and with it the opportunity to increase profit. At the same time, many writers would argue that the independence of local management is important to good performance, because responsibility serves to motivate staff. Giving responsibility to the centre can simply demotivate, whilst at the same time eradicating the detailed understanding of local conditions.

There is no clear cut answer as to whether centralised or decentralised treasury functions are preferable. The choice is ultimately dependent upon the specific needs of the individual company.

9. Briefing Note

To: **Management NMH Limited**
From: **C Willis, Accountant**
Date: **16th May 2006**
Subject: **Working Capital Management**

Introduction

This report analyses the working capital management of NMH Limited. It is based on an analysis of the two most recent annual audited accounts, for the years ended 31st December 2010 and 2011 respectively. Please find at Appendix 1 a summary of the key indicators calculated and used for the purposes of this briefing.

Findings

Sales increased by 78% over the two years. Intrinsic profitability measured by the GP% has increased 1.9%. Likewise ultimate profitability has increased significantly by 3.6%. This growth is to be welcomed. However, the increased investment in inventories of RWF 950k, with average inventory days increasing by 36 days to 134 days, and non-current assets of RWF 220k is placing a strain on the company's liquidity. This is because this investment is being primarily financed from expensive short-term sources, whilst, during the year we also repaid RWF 300k of our long term loan. As a direct result of this the short term cash holdings changed from a surplus of RWF 400K to an borrowing of RWF 100K.

Liquidity is an increasing concern for the company with current asset ratio cover reducing from 1.55:1 to 1.38:1. Likewise, quick ratio cover has also fallen from 0.63:1 to 18:1.

Whilst we have used increases in creditors of RWF 620k to help fund the investment in inventories, we have increased our average payment days by 28 days to 81 days. This means we are extending credit beyond the industry norm of 60 days. If left unchecked this could damage our credit rating and lead to foregoing settlement discounts.

The debtors collection period has increased from 8 days to 14 days. Whilst extending credit may help win more sales, this trend needs to be managed more carefully in order to avoid the risk of bad debts and to provide much needed cash-flow.

Conclusion

The investment in growth allied to deteriorating working capital management is threatening the short term liquidity and survival of the company. The term structure of the company's finances needs to be addressed immediately.

Appendix 1

Key Financial Indicators for Years Ended 31st December 2010 and 2011

Indicator Formulae	**2010**	**2011**
Gross Profit % GP/Sales x 100	27.8%	29.7%
Net Profit % NP/Sales x 100	6.1%	9.7%
Sales Growth (Current - Prior) / Prior x 100		77.8%

Current Ratio Current Assets : Current Liabilities	1.55	1.38
Quick Ratio Current Assets-Stock : Current Liabilities	0.63	0.18
Collection Days (Debtors/Sales x 365)	8	14
Creditors Days Creditors/Cost of Sales x 365	53	81
Inventory Days (Stock/Cost of Sales x 365)	98	134

10. CLG Ltd – Gikondo Plant – Projected Cash Budget for the year ended 31st December 2008

Details	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Receipts from Debtors	3,500,000	4,800,000	6,240,000	7,200,000
Payments				
To raw material suppliers	-650,000	-700,000	-640,000	-832,000
Direct wages	-800,000	-1,040,000	-960,000	-1,296,000
Variable overheads	-400,000	-520,000	-480,000	-540,000
Fixed overheads – cash	-2,475,000	-2,475,000	-2,475,000	-2,475,000
Corporation tax			-70,000	
Purchase of motor vehicles			-50,000	
Net in Month Cash Movement	-825,000	65,000	1,565,000	2,057,000
Opening cash balance	-80,000	-905,000	-840,000	725,000
Closing cash balance	-905,000	-840,000	725,000	2,782,000

CLG Ltd – Gikondo Plant – Projected Cash Budget (Note 1) – Sales Receipts

Details	Quarter 1	Quarter 2	Quarter 3	Quarter 4
C/F Debtors from 31/12/08	3,500,000			
Previous Quarter Sales Units		40,000	52,000	48,000
Unit price		120	120	150
Sales receipts	3,500,000	4,800,000	6,240,000	7,200,000

CLG Ltd – Gikondo Plant – Projected Cash Budget (Note 2) – Payments to Creditors

Details	Quarter 1	Quarter 2	Quarter 3	Quarter 4
C/F Creditors quarter 3 of y/e 31/12/07	650,000			
C/F Creditors quarter 4 of y/e 31/12/08		700,000		
Q1 Purchases 2008 @ 80,000 units @ RWF 8 /unit			640,000	
Q2 Purchases 2008 @ 104,000 units @ RWF 8 /unit				832,000
Creditor payments	650,000	700,000	640,000	832,000

CLG Ltd – Gikondo Plant – Projected Cash Budget (Note 3) – Wages Payments

Details	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Quarterly Production	40,000	52,000	48,000	54,000
Direct labour hours per unit	2	2	2	2
Total direct labour hours	80,000	104,000	96,000	108,000
Wage cost per hour	10	10	10	12
Total wage payment	800,000	1,040,000	960,000	1,296,000

CLG Ltd – Gikondo Plant – Projected Cash Budget (Note 4) – Variable Overhead Payments

Details	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Quarterly production	40,000	52,000	48,000	54,000
Variable overhead per unit	10	10	10	10
Total variable overhead payment	400,000	520,000	480,000	540,000

CLG Ltd – Gikondo Plant – Projected Cash Budget (Note 5) – Fixed Overhead Payments

Details	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Total monthly overhead	2,575,000	2,575,000	2,575,000	2,575,000
Less: Non-Cash Item (depreciation)	-100,000	-100,000	-100,000	-100,000
Total wage payment	2,475,000	2,475,000	2,475,000	2,475,000