Advanced Financial Management

Specimen Exam – September 2022

Get to know your exam

These graphical representations are intended to give an indication of exam requirements and associated question content.

Please note that you will not be able to complete answers within these documents and in isolation they will not sufficiently prepare you for your exam.

We encourage you to visit the ACCA Practice Platform in order to attempt up to date practice exams within the computer-based exam environment.

Instruction screens

Advanced Financial Management (AFM) Specimen - from September 2022 onwards

Instructions (1 of 4)

The Workspace

- Your exam consists of a number of questions. Each question is presented in a workspace. Each workspace will include:
    - Introductory information for the question.
    - Exhibits – these contain the question scenario content broken down into sections or sources of information you will need to answer the question requirement(s).
    - Requirements – these list the requirement(s) you are expected to answer in the workspace.
    - Response Options – you may be presented with one or more word processor and/or spreadsheet response options within which to construct your answer.
- When selected, the exhibits, requirements and response options will display in windows, which can be moved and resized as required.
- You can close each window individually or close all windows at once by selecting **Close All** on the top toolbar. Note that any answers you have entered into the response options will be saved and you can re-open them and change your answers at any time.
- There is a splitter bar which can be used for you to see more or less of the left or right hand side of the screen, as required.
- When using PDF exhibits in the exam, and you want to select text to highlight, strikethrough or copy, you need to select the 'text tool' button at the top of the exhibit.
- You can highlight or strikethrough text in the introductory information, PDF exhibits or requirements by selecting **Highlight** or **Strikethrough**
- You can copy and paste between exhibits, requirements and response options by using the Ctrl-C (Copy) and Ctrl-V (Paste) shortcuts. **Note**: When pasting into a spreadsheet response from elsewhere in the workspace you must double-click the cell or select the formula bar.

Note: In a number of countries ACCA works in partnership with the national professional accountancy organisation in the delivery of examinations.

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Instruction screens (continued)

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Instructions (2 of 4)

Navigation

- The question number you are viewing is displayed in the top display bar. You can hide or restore this display by selecting
- You can navigate between screens by selecting Next → or ← Previous, or by clicking on a question number from the Navigator or Item Review screens.
- You can revisit questions and change your answers at any time during the exam.

Time Remaining

- The time remaining for your exam continually updates and is displayed in the top display bar. You can hide or restore this display by clicking
- You will be presented with a message confirming when you have 15 minutes remaining.

Flag for Review

- If you wish to revisit/review a question later in the exam, click Flag for Review
- Click the button again to remove the flag.

Help

- Click the **Help** button provided to access:
  - A copy of these exam instructions.
  - Help and guidance on workspaces.
  - Formulae sheets/tax tables if your exam requires these. Note that the name of the Help button will indicate if formulae sheets/tax tables are available i.e. Help, Help/Formulae Sheet or Help/Tax Tables

Calculator

- You have the option to use the on-screen standard or scientific calculators by selecting Calculator
- Note that you are also permitted to use your own calculator providing it does not have the facility to store or display text.

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Instruction screens (continued)

Advanced Financial Management (AFM) Specimen - from September 2022 onwards

Instructions (3 of 4)

Workings/Scratch Pad

- You may use an on-screen Scratch Pad to make notes/workings by selecting **Scratch Pad**
- You can cut and copy text from the Scratch Pad and paste into your response options using the Ctrl-C (Copy), Ctrl-X (Cut) and Ctrl-V (Paste) shortcuts, or the on-screen buttons. **Note**: When pasting into a spreadsheet response you must double-click the cell or select the formula bar.
- The Scratch Pad retains all notes/workings entered for all workspaces. These are available for the duration of the exam but will not be submitted for marking.
- You will also be provided with paper for notes/workings should you prefer to use it. This will be collected at the end of the exam and must not be removed from the exam room.
- **Important:**
  - The notes/workings entered onto the Scratch Pad or your workings paper will not be marked.
  - If you want the marker to see any notes/workings for question requirements you must show them within the relevant response options.

Symbol

- You can add a selection of currency symbols to your answers by selecting **$ Symbol** on the top toolbar.

Navigator Screen

- Navigator can be accessed at any time during the exam by selecting **Navigator**
- This screen allows you to jump to any question number in the exam.

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Instruction screens (continued)

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Instructions (4 of 4)

Exiting the Exam

- The exam will automatically end when the allocated time has been reached.
- If, however, you wish to end the exam before this time you must:
  - Navigate to the **last question** in the exam.
  - Click **Next →**
- This takes you to the Item Review screen:

  Item Review Screen

  - This screen gives you an opportunity to see the flag and completion status of all questions before you finally exit the exam.
  - You can select individual questions you wish to revisit, or quickly access groups of questions from this screen.
  - During the item review period Navigator is not available however you can navigate to questions by selecting **Next →**, **← Previous** or **Review Screen**
  - Once you have completed your item review and wish to finally end the exam click **End Exam**

Select **Next** to move to the Exam Summary screen.

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Exam summary screen

Advanced Financial Management (AFM) Specimen - from September 2022 onwards

Exam Summary

Time allowed: 3 hours 15 minutes.

This exam is divided into two sections:

Section A

- One question worth 50 marks.
- 50 marks in total.

Section B

- Two questions, each worth 25 marks.
- 50 marks in total.

All questions are compulsory.

Select **Next** to start your exam.

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Exam questions

Section A – summary screen

Advanced Financial Management (AFM) Specimen - from September 2022 onwards

Flag for Review

Section A

This section of the exam contains **one question**.

This question is worth **50 marks** and is compulsory.

This exam section is worth **50 marks** in total.

Important:

You must:

- Indicate which requirement each of your responses relate to so that this is clear for markers.
- Show all notes/workings that you want the marker to see within your responses. Remember, any notes/workings made on the Scratch Pad or on your workings paper will not be marked.

Select **Next** to continue.

Navigator Next

Section A – question 1

Exhibits

- 1. Kingtim Co
- 2. Takeover defences
- 3. Financial details
- 4. Employee remuneration

Requirements

- Requirements (50 marks)

Response Options

- Word Processor
- Spreadsheet

The following **exhibits**, available on the left-hand side of the screen, provide information relevant to the question:

1. Kingtim Co
2. Takeover defences - to be used by Kingtim Co
3. Financial details - relating to cost of capital and bond information
4. Employee remuneration

This information should be used to answer the question **requirements** within your chosen **response option(s)**.

Requirements

Requirements (50 marks)

(a) Discuss the feasibility and effectiveness of the defence strategies of selling off individual garden centres and enhancing directors' remuneration.

(7 marks)

(b) Prepare a report for the board of directors of Kingtim Co which:

(i) estimates the company's cost of capital before the new bonds are issued;

(4 marks)

(ii) estimates the market value and post-tax cost of debt of the new bonds;

(7 marks)

(iii) estimates the revised cost of equity and revised cost of capital if the new bonds are issued;

(7 marks)

(iv) discusses the impact on Kingtim Co's cost of capital and the reaction of equity and bond holders to the chief executive's proposal. The discussion should include an explanation of any assumptions made in the estimates in (b) (i) – (iii) above.

(9 marks)

(c) Discuss the approach taken to employee remuneration by Kingtim Co's Northern region and the issues associated with it.

(6 marks)

Professional marks will be awarded for the demonstration of skill in communication, commercial acumen, analysis, scepticism and evaluation in your answer.

(10 marks)

Exhibit 1

1. Kingtim Co

Kingtim Co is a nationwide chain of garden centres, selling products such as plants, fertilisers, tools and garden furniture. It was established 20 years ago by the current team of executive directors, and achieved a listing on its local stock market four years ago. Since listing, the company has made consistent profits and has been able to increase its dividends each year. The executive directors collectively own between them 25% of issued share capital. The remaining shares are held by a number of investors, with none of them owning more than 10% of issued share capital.

Two of Kingtim Co's major competitors have been taken over in the last two years. Media coverage suggests that further takeovers are possible. Potential acquirers include other chains of garden centres, property developers and supermarket chains looking to diversify their business into the profitable garden centre sector. As yet, no potential acquirer has approached Kingtim Co to buy the whole chain, although Kingtim Co has had enquiries from other businesses wanting to purchase individual garden centres. Kingtim Co can sell a number of individual garden centres without threatening its continued existence.

Exhibit 2

2. Takeover defences

Kingtim Co's executive directors remain committed to the business. They are fearful of a takeover, believing that the new owners will want some, or all of them, to leave the company. They have therefore been considering possible defences against a takeover bid. Kingtim Co's chief executive has received two proposals from directors:

– Sell individual garden centres which would be particularly attractive to purchasers. Disposal of these centres would make Kingtim Co, overall, a less attractive purchase.
– Pay the executive directors higher remuneration and change their contracts so that they would receive much higher compensation for loss of office if their contracts were terminated early.

Kingtim Co's chief executive believes, however, that any defence Kingtim Co adopts should also strengthen the company's future. She is therefore proposing to expand the company's current limited sales of camping products in its garden centres by establishing a chain of Kingtim outdoor shops, selling camping, walking and other outdoor equipment. The outdoor retail sector is competitive, but the chief executive believes that Kingtim Co will be successful. The establishment of the chain of outdoor shops would be funded solely by debt, the idea being that changing Kingtim Co's finance structure by having significantly more debt would make it less attractive to acquirers.

Exhibit 3

3. Financial details

Kingtim Co currently has 25 million $1 shares in issue, with a current share price of $5.56 per share. It also has 0.45 million 6.5% bonds in issue. Each 6.5% bond has a nominal value of $100, and is currently trading at $104 per $100. The premium on redemption of the bonds in three years' time is 2%. Based on a yield to maturity approach, the after-tax cost of the bonds is 4.1%.

Kingtim Co's quoted equity beta for its existing garden centre business is 0.9.

Kingtim Co plans to issue 0.6 million, 7.5%, new bonds, each with a nominal value of $100. These bonds will be redeemable in four years' time at a premium of 8%. The coupon on these bonds will be payable on an annual basis. These bonds are anticipated to have a credit rating of BBB–. The issue of the new 7.5% bonds will not affect the market value of Kingtim Co's shares or the existing 6.5% bonds.

The market value of the new bonds will be determined by using information relating to Kingtim Co's credit rating and the four bonds which the government has issued to estimate Kingtim Co's yield curve. All the bonds are of the same risk class. Details of the bonds are as follows:

Bond	Annual yield (based on spot rate)	Redeemable in
Ga	4%	1 year
Th	4.3%	2 years
De	4.7%	3 years
Ro	5.2%	4 years

Credit spreads, shown in basis points, are as follows:

Rating	1 year	2 years	3 years	4 years
BBB–	56	78	106	135

Kingtim Co plans to invest $60m in non-current assets for the outdoor shops (working capital requirements can be ignored). Currently, Kingtim Co's non-current assets have a net book value of $150m. It is assumed that the proportion of the book value of non-current assets which will be invested in the outdoor shops and the garden centres will give a fair representation of the size of each business within Kingtim Co. The asset beta of similar companies in the outdoor retail sector is assumed to be 0.88.

Before taking into consideration the impact of this new investment, Kingtim Co's forecast pre-tax earnings for the coming year is $24m. It is estimated that the new investment will make a 10% pre-tax return and after-tax earnings will increase by $1.125m.

The corporation tax rate applicable to all companies is 25% per year. The current risk-free rate of return is estimated to be 4% and the market risk premium is estimated to be 9%.

Exhibit 4

4. Employee remuneration

Kingtim Co's annual report contains a general commitment to act with social responsibility, in line with society's expectations. It also commits to paying its staff fairly in accordance with their responsibilities and states that its staff are vital to its success.

To try to improve the situation of low-paid employees, the government has recommended a basic hourly wage as the minimum level employees should be paid, although this minimum is not legally enforceable. A newspaper investigation has revealed that some staff in Kingtim Co's garden centres in the northern region of the country are paid up to 15% less per hour than the recommended minimum wage. Most of these staff are part-time staff, working limited hours each week.

The manager of Kingtim Co's northern region centres, when asked to comment, stated that Kingtim Co had obligations to its shareholders to control staff costs. Lower pay levels were necessary to differentiate between staff, ensuring that managers and staff with experience and expertise were appropriately rewarded. The manager commented that pay levels also reflected the lower commitment to Kingtim Co which part-time staff made compared with full-time staff.

Section B – summary screen

Advanced Financial Management (AFM) Specimen - from September 2022 onwards

Flag for Review

Section B

This section of the exam contains **two questions**.

Each question is worth **25 marks** and is compulsory.

This exam section is worth **50 marks** in total.

Important:

You must:

- Indicate which requirement each of your responses relate to so that this is clear for markers.
- Show all notes/workings that you want the marker to see within your responses. Remember, any notes/workings made on the Scratch Pad or on your workings paper will not be marked.

Select **Next** to continue.

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Section B – question 1

Advanced Financial Management (AFM) Specimen - from September 2022 onwards

$ Symbol ▼ Highlight Strikethrough Calculator Scratch Pad Close All Flag for Review

Exhibits

1. Colvin Co
2. Project information
3. Discount rate

Requirements

Requirements (25 marks)

Response Options

Word Processor

Spreadsheet

The following **exhibits**, available on the left-hand side of the screen, provide information relevant to the question:

1. Colvin Co
2. Project information
3. Discount rate

This information should be used to answer the question **requirements** within your chosen **response option(s)**.

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Requirements

Requirements (25 marks)

(a) Evaluate the suitability of the investment proposal in Canvia, including the impact of the country risk premium on the net present value of the project.

(14 marks)

(b) Discuss the validity of the chief executive's reasons for adjusting the discount rate used in appraising the project in Canvia.

(6 marks)

Professional marks will be awarded for the demonstration of skill in commercial acumen, analysis, scepticism and evaluation in your answer.

(5 marks)

Exhibit 1

1. Colvin Co

Page: 1 of 1 110%

Colvin Co is based in the eurozone region and was established ten years ago to manufacture competition standard bicycles for professional road racers. When the company obtained a listing five years ago, the founder retained a small minority shareholding. The remaining shares are held by a number of institutional investors.

The board recently decided to expand the range of models and to look for new growth opportunities abroad. Whilst manufacturing is currently restricted to the eurozone, the board of directors has identified Canvia as a key growth market and is considering a potential investment project to manufacture and sell a new model there. This would involve establishing a subsidiary in Canvia.

Exhibit 2

2. Project information

The currency in Canvia is the Canvian lira (CL) and the current exchange rate is CL9·91 per euro (€). The annual rate of inflation in Canvia is expected to remain at 10% throughout the four-year duration of the project.

The finance director estimates the project's sales volumes, inflation-adjusted, pre-tax contribution and fixed costs as follows:

Year	1	2	3	4
Sales volume (units)	109,725	121,795	148,590	197,624
Pre-tax contribution (CLm)	419·4	500·2	671·3	961·2
Fixed costs (CLm)	270·0	291·6	314·9	340·1

The project will require an immediate investment of CL75m in land and buildings and CL700m in plant and machinery. Tax allowable depreciation is available on plant and machinery on a straight-line basis at an annual rate of 25% on cost. Colvin Co's finance director believes the plant and machinery will have a zero residual value at the end of the four years. The land and buildings will be disposed of at the end of the project and their tax exempt value is expected to increase at an annual rate of 30% throughout the four-year life of the investment.

The project will also require an immediate investment in working capital of CL25m. The annual incremental working capital requirements are expected to be as follows:

Year	0	1	2	3
CLm	(25·0)	(2·5)	(2·8)	(3·0)

Working capital will be released back in full at the end of the project. Colvin Co has a policy of extracting remittable cash flows as dividends at the earliest possible opportunity.

All components for the new bicycle will be produced or purchased in Canvia except for a gearing system component which will be manufactured by Colvin Co in the eurozone. The cost of acquiring this component from the eurozone is already included in the pre-tax contribution estimates, based on a transfer price of €10 per component. The finance director estimates a manufacturing cost of €2 per component. Both the transfer price and manufacturing cost are expected to increase in line with eurozone annual inflation of 4% in the first two years of the project and 2% in years three and four.

Corporation tax in Canvia is payable annually at 25% and companies are allowed to carry losses forward to be offset against future trading profits. Colvin Co pays corporation tax in its home country at an annual rate of 20%. Taxes are payable in both countries in the year the liability is incurred. A bi-lateral tax treaty exists between the two countries, which permits the offset of overseas tax against any domestic tax liability incurred on overseas earnings.

Exhibit 3

3. Discount rate

The board proposes financing the project with a mix of equity and debt in such a way that the existing capital structure remains unchanged. For the purposes of this project, the chief executive believes Colvin Co's weighted average cost of capital of 13% should be adjusted to include a country risk premium on the basis that Canvia is a developing economy and appears to be economically less stable than the eurozone countries. She made this decision after consulting a country risk index, which compares the standard deviation of market returns in various countries.

Additional factors taken into consideration include foreign exchange risk, the fact that there have been frequent changes of government, and hence ecomonic policies, in Canvia. You have therefore been asked to use a discount rate of 16% to appraise this investment project.

Section B – question 2

Advanced Financial Management (AFM) Specimen - from September 2022 onwards

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$ Symbol ▼ Highlight Strikethrough Calculator Scratch Pad

Close All Flag for Review

Exhibits

1. Boullain Co and its hedging policy
2. Hedging products

Requirements

Requirements (25 marks)

Response Options

Word Processor

Spreadsheet

The following **exhibits**, available on the left-hand side of the screen, provide information relevant to the question:

1. Boullain Co and its hedging policy
2. Hedging products

This information should be used to answer the question **requirements** within your chosen **response option(s)**.

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Requirements

Requirements (25 marks)

(a) Explain the rationale for the policy of hedging Boullain Co's foreign exchange risk and the potential benefits to shareholder value if that policy is effectively communicated to the company's key stakeholders.

(6 marks)

(b) Recommend a hedging strategy for Boullain Co's foreign currency receipt in six months' time based on the hedging choices the finance director is considering. Support your recommendation with relevant calculations and appropriate discussion including the impact of the margin requirements.

(14 marks)

Professional marks will be awarded for the demonstration of skill in commercial acumen, analysis, scepticism and evaluation in your answer.

(5 marks)

Exhibit 1

1. Boullain Co and its hedging policy

Page: 1 of 1 110%

Boullain Co is based in the Eurozone and manufactures components for agricultural machinery. The company is financed by a combination of debt and equity, having obtained a listing five years ago. In addition to the founder's equity stake, the shareholders consist of pension funds and other institutional investors. Until recently, sales have been generated exclusively within the Eurozone area but the directors are keen to expand and have identified North America as a key export market. The company recently completed its first sale to a customer based in the United States, although payment will not be received for another six months.

At a recent board meeting, Boullain Co's finance director argued that the expansion into foreign markets creates the need for a formal hedging policy and that shareholder value would be enhanced if this policy was communicated to the company's other stakeholders. However, Boullain Co's chief executive officer disagreed with the finance director on the following grounds. First, existing shareholders are already well diversified and would therefore not benefit from additional risk reduction hedging strategies. Second, there is no obvious benefit to shareholder value by communicating the hedging policy to other stakeholders such as debt providers, employees, customers and suppliers. You have been asked to provide a rationale for the finance director's comments in advance of the next board meeting.

Exhibit 2

2. Hedging products

Assume today's date is 1 March 20X0. Boullain Co is due to receive $18,600,000 from the American customer on 31 August 20X0. The finance director is keen to minimise the company's exposure to foreign exchange risk and has identified forward contracts, exchange traded futures and options as a way of achieving this objective.

The following quotations have been obtained.

Exchange rates (quoted as €/US$1)

Spot	0·8707–0·8711
Six months forward	0·8729–0·8744

Currency futures (contract size €200,000; price quoted as US$ per €1)

	Price
March	1·1476
June	1·1449
September	1·1422

Currency options (contract size €200,000; exercise price quoted as US$ per €1, premium: US cents per €1)

		Calls			Puts	
Exercise price	**March**	**June**	**September**	**March**	**June**	**September**
1·1420	0·43	0·59	0·77	0·62	0·78	0·89

Assume futures and options contracts mature at the month end and that there is no basis risk. The number of contracts to be used should be rounded down to the nearest whole number in calculations. If the full amount cannot be hedged using an exact number of futures or options contracts, the balance is hedged using the forward market.

Once the position is open, the euro futures contract outlined above will be marked-to-market on a daily basis. The terms of the contract require Boullain Co to deposit an initial margin per contract with the clearing house. Assume the maintenance margin is equivalent to the initial margin.

Your manager is concerned about the impact of an open futures position on Boullain Co's cash flow and has asked you to explain the impact of the margin requirements and their significance for the hedging decision.

Answers

1 (a) Sell-off of garden centres

Selling some of the most desirable garden centres, known as selling the crown jewels, may deter some acquirers looking to buy the whole chain if Kingtim Co sells the assets they most desire. Kingtim Co could take this option if it is able to sell off individual centres without jeopardising its overall existence.

However, if no particular use is made of the cash raised from the sales, Kingtim Co would still remain a tempting takeover target due to its cash surpluses. Returning the surplus cash to shareholders in the form of a one-off dividend might be popular with shareholders, but equally they might be concerned about their future returns given the sale of assets generating significant income. Shareholders and others interested in Kingtim Co might also question what future strategies the board had in mind if it did not use these cash surpluses for investment.

Also, if the money was distributed to shareholders, Kingtim Co would become a smaller company and perhaps more affordable to some potential acquirers.

Enhanced directors' remuneration and contracts

The enhanced commitments to the directors would represent an increased burden for acquirers, either the costs of honouring them, or the cost and the time involved in terminating the directors' employment and compensating them. This burden may deter acquirers, particularly if the decision to acquire is marginal.

However, enhancing the commitments to the directors could be ineffective. The acquirer could decide to keep the directors on and pay the increased remuneration. Alternatively, the acquirer may feel that buying out the directors' contracts and compensating them is a necessary cost which it is prepared to bear.

Corporate governance aspects are also important. As a listed company, Kingtim Co should have a remuneration committee made up of non-executive directors, who should be reviewing the executive directors' remuneration packages. Kingtim Co may have to publish a remuneration report to explain the rationale for directors' remuneration, and to allow shareholders to discuss and perhaps vote on the report.

Shareholders may believe that the directors are being given a better compensation package without having earned it, and for no other reason than to try to protect their own positions. They may doubt whether directors are acting in the best interests of the company and its shareholders.

(b) (iv) Report to board of directors, Kingtim Co

Introduction

This report indicates the impact of the proposed investment in outdoor shops and the consequent increase in debt finance. It also discusses the possible reactions of equity and bond holders to the proposals. Financial estimates provided in the appendices are used to support the discussion and assumptions underlying the estimates are set out below.

Cost of capital

There are two impacts, in opposite directions, on the weighted average cost of capital.

Kingtim Co's cost of equity has risen significantly. This is due to increased business risk, resulting from the investment in the outdoor shops and increased financial risk from the additional debt. The increase in the cost of equity has pushed the weighted average cost of capital upwards.

However, the higher proportion of debt in the company's finance structure, with debt having a lower cost than equity and also being tax-deductible, has pushed the weighted average cost of capital downwards.

Overall, however, the weighted average cost of capital has risen, meaning the increase in the cost of equity has had the greater impact.

Assumptions

The assumptions about the returns from the new investment may depend on how much Kingtim Co can attract customers away from competitors rather than finding a new market niche itself. Competitor reaction may also impact upon returns.

The CAPM model used is assumed to be a good predictor of equity returns, although some published evidence suggests that it may not be.

The asset beta used for the outdoor shops is a representative beta for similar companies and may not be accurate for Kingtim Co. The asset beta used to calculate the revised cost of equity is a weighted average of the asset betas of the two businesses. The weighting used is the non-current assets in each business, which is assumed to approximate to the size of each business. This assumes that non-current assets currently held are valued fairly, and that their valuation represents their income-generating potential and the proportion of business risk which each business represents.

The share price and price of the existing bonds are assumed to remain unchanged when the new investment is made. As discussed below, there is a strong possibility of changes in the shareholder base leading to changes in the share price and hence in the cost of capital.

Equity holders

Equity holders may consider the returns from the new investment to be insufficient. The pre-tax return of 10% is lower than the 16% pre-tax return ($24m/$150m) on the existing garden centres, and is not much above the 7·5% pre-tax finance cost of the bonds used to finance the investment.

Equity holders are likely to be concerned about the increases in both business and financial risks. The increase in business risk is due to the higher business risk for the outdoor shops, due to the competition in that sector. Equity holders will be concerned about the possible variability of returns and also of dividends, as the company is committed to an increased operating cost burden in terms of extra premises and increased finance costs. Variability of returns may also result in the share price becoming more volatile.

Other aspects concerning equity holders might be any restrictive covenants attached to the new bonds which affect payment of dividends and also the planned repayment of the bonds. Kingtim Co already has a significant commitment to repay the $45m bonds in three years' time. The new bonds would mean an additional commitment to repay $60m just a year later. The alternative is refinancing, but the terms which would be available are currently unknown.

These risks may mean that equity holders reconsider their investment in Kingtim Co, if they are risk-averse and do not feel that the additional returns compensate for the risk. They will take into account that the return on investment in the new business is lower than the current return on investment in the garden centres, although they are not required to make any additional investment themselves for the return on the outdoor shops. The share price will fall if a significant number of shareholders decide to sell their shares, although Kingtim Co may attract a new clientele of shareholders who are more risk-seeking.

Bond holders

Bond holders are likely to be most concerned about Kingtim Co's ability to meet its interest and repayment commitments. Holders of the new bonds are particularly likely to be concerned about the ability to repay their capital, given the commitment to repay existing bond holders. Bond holders may also be concerned about whether the financing of the investment allows Kingtim Co to take undue risks. They may wonder about the motivation for undertaking the new investment using debt finance, particularly if they are not convinced about its business case.

Conclusion

Assuming a strong business case can be made for the investment and the estimates are robust, Kingtim Co may be able to justify financing it solely by debt and claim that the increase in financial risk is within acceptable levels. However, before committing to further debt, Kingtim Co must provide a clear plan for repayment of both the current and new bonds, or offer sufficient assurance that it will be able to refinance its debt when it is due for repayment.

Appendix 1 Estimate of existing cost of capital (b) (i)

Cost of equity

k_e = 4·0% + (0·9 x 9·0%) = 12·1%

Value of equity (V_e) = $5·56 x 25 million shares = $139m

Value of existing bonds

V_d = $104 x 0·45 million = $46·8m

Current WACC

WACC = ((12·1% x 139) + (4·1% x 46·8))/(139 + 46·8) = 10·1%

Appendix 2 Estimate of cost of new bonds (b) (ii)

Annual yield curve

Bond	Government annual yield curve	Credit spread	Kingtim Co annual yield curve
Ga	4%	56	4·56%
Th	4·3%	78	5·08%
De	4·7%	106	5·76%
Ro	5·2%	135	6·55%

Value of new bonds based on annual yield curve

$7·50 x $1·0456^{-1}$ + $7·50 x $1·0508^{-2}$ + $7·50 x $1·0576^{-3}$ + $115·50 x $1·0655^{-4}$ = $109·92

Market value of new bonds

$109·92 x 0·6m = $65·952m

Post-tax cost of debt of new bonds

Year		**$**	**5%**	**$**	**3%**	**$**
0	Market value	(109·92)	1·000	(109·92)	1·000	(109·92)
1–4	Interest (post-tax)	5·63	3·546	19·96	3·717	20·93
4	Redemption	108·00	0·823	88·88	0·888	95·90
				(1·08)		6·91

Post-tax cost of debt = 3% + ((6·91/(6·91 + 1·08)) x (5% – 3%)) = 4·7%

Appendix 3 Revised cost of equity and WACC (b) (iii)

β_a garden centre business = 0·9 x (139/(139 + (46·8 x 0·75))) = 0·72

Weighted average β_a = (0·72 x (150/(150 + 60))) + (0·88 x (60/(150 + 60))) = 0·77

β_e = 0·77 x ((139 + ((46·8 + 65·952) x 0·75))/139) = 1·24

k_e = 4·0% + (1·24 x 9·0%) = 15·2%

WACC = ((15·2% x 139) + (4·1% x 46·8) + (4·7% x 65·952))/(139 + 46·8 + 65·952) = 10·4%

(c) Approach taken

The stated approach to employee remuneration has some business logic. Expertise, experience, seniority and commitment are all attributes which staff have that could be reflected in extra rewards for them, not only out of fairness to the staff but also because of their value to the business. If staff with these attributes believe they are not being rewarded fairly, they may leave and perhaps join a competitor.

Kingtim Co also has a duty to enhance the wealth of its shareholders and has raised expectations by recently increasing dividends. There is a stakeholder conflict, as increasing the wages of many employees would lead to lower profits and less money available for distribution to shareholders.

Issues with approach

The statement about part-time staff not having the same level of commitment may well be unjust, as they may be as committed as full-time staff during the hours they work.

The current approach raises a number of ethical issues, which may also harm Kingtim Co's reputation. It has made commitments to act in accordance with society's expectations and to treat its staff fairly. Although the basic wage is not legally enforceable, it does represent society's expectations about what employees should be paid. Limiting rewards to staff who may only be able to work part-time because of other commitments could also be something that society judges to be discriminatory and may be against the law.

In addition, if Kingtim Co's directors are given more lucrative contracts as a takeover defence mechanism, this undermines the argument for limiting staff costs in order to maintain shareholder reputation.

The consequences of these threats to reputation might again be that lower-paid staff eventually decide to leave. A high staff turnover will mean few staff develop experience and expertise over time, which may impact on customer service quality. Kingtim Co may also have problems recruiting staff for its new outdoor business. Customers may also stop shopping at Kingtim Co in protest at the poor treatment of staff.

2 (a) Project cash flows: All figures are in CL millions

Year	**0**	**1**	**2**	**3**	**4**
Contribution		419·4	500·2	671·3	961·2
Fixed costs		(270·0)	(291·6)	(314·9)	(340·1)
Tax allowable depreciation		(175·0)	(175·0)	(175·0)	(175·0)
Taxable profit/(loss)		(25·6)	33·6	181·4	446·1
Tax loss carried forward			(25·6)		
Adjusted taxable profit		(25·6)	8·0	181·4	446·1
Taxation (25%)			(2·0)	(45·4)	(111·5)
Tax loss carried forward			25·6		
Add back TAD		175·0	175·0	175·0	175·0
Cash flows after tax		149·4	206·6	311·0	509·6
Working capital	(25·0)	(2·5)	(2·8)	(3·0)	33·3
Investment cost	(775·0)				214·2
Cash flows	(800·0)	146·9	203·8	308·0	757·1

Cash flows: All figures are in € millions

Year	0	1	2	3	4
Exchange rate (w1)	9·91	10·48	11·09	11·96	12·89
Total investment cost	(80·7)				
Remittable cash flows		14·0	18·4	25·8	58·7
Component contribution (w2)		0·9	1·1	1·3	1·8
Tax on net contribution (20%)		(0·2)	(0·2)	(0·3)	(0·4)
Cash flows	(80·7)	14·7	19·3	26·8	60·1

Net present value using 16% discount rate: All figures are in € millions

Year	0	1	2	3	4
Cash flows	(80·7)	14·7	19·3	26·8	60·1
Discount rate (16%)	1·000	0·862	0·743	0·641	0·552
Present values	(80·7)	12·7	14·3	17·2	33·2

Net present value (€3·3m)

Net present value using 13% discount rate: All figures are in € millions

Year	0	1	2	3	4
Cash flows	(80·7)	14·7	19·3	26·8	60·1
Discount rate (13%)	1·000	0·885	0·783	0·693	0·613
Present values	(80·7)	13·0	15·1	18·6	36·8

Net present value €2·8m

Workings

Working 1 (w1): Exchange rates

Year	1	2	3	4
CL/€	9·91 x 1·10/1·04 =10·48	10·48 x 1·10/1·04 = 11·09	11·09 x 1·10/1·02 = 11·96	11·96 x 1·10/1·02 = 12·89

Working 2 (w2): Component contribution (€)

Year	1	2	3	4
Contribution	109,725 x 8 x 1·04 = 0·9m	121,795 x 8 x $1{\cdot}04^2$ = 1·1m	148,590 x 8 x $1{\cdot}04^2$ x 1·02 = 1·3m	197,624 x 8 x $1{\cdot}04^2$ x $1{\cdot}02^2$ = 1·8m

Comment

The decision whether to accept or reject the project critically depends on the discount rate, switching from a negative net present value of €3·3m when the discount rate includes a country risk premium to a positive net present value of €2·8m when there is no premium. Given that there appears to be greater justification for the 13% discount rate, it is recommended that the project should be accepted. However, the adjustment to the weighted average cost of capital requires further investigation because it is possible Colvin Co could accept a project which reduces shareholder wealth.

The outcome assumes the contribution and other cash flows are reliably estimated. Other critical inputs include the assumption that land and buildings will increase in value at an annual rate of 30% and that any disposal is tax exempt.

(b) Colvin Co's investment in Canvia does not involve a change in business risk or capital structure. The company's weighted average cost of capital would normally be expected to provide a reasonable measure of risk for the new project. The chief executive's justification for a risk premium is based on the increased risk the company is exposed to in Canvia, a developing economy, compared to the company's existing business in the Eurozone. This perception of increased risk is based on a country risk index, which compares the standard deviation of market indices around the world. The chief executive has incorporated other factors, such as political risk and foreign exchange risk, in determining this premium.

However, standard deviation is not the appropriate measure of risk for Colvin Co's investment since any portion of total risk which is uncorrelated across different markets can be diversified away at no cost to investors. For example, adverse political events in Canvia may be partially offset by more favourable events in other parts of the world. No rational investor would pay a premium for risk which can be avoided. In this sense, although Colvin Co's investment in Canvia is exposed to foreign exchange risk, this too can be mitigated by an appropriate hedging policy.

Furthermore, Colvin Co's institutional shareholders are likely to be well diversified across global markets and asset classes. The potential for further risk reduction by Colvin Co from diversifying operations globally is therefore limited when the shareholders can achieve this more efficiently on their own.

The only component of total risk which could justify a premium to Colvin Co's cost of capital is market risk or undiversifiable risk. This assumes returns across countries are significantly positively correlated. For example, there is a strong possibility that a recession in the Eurozone may lead to a downturn in Canvia too rather than offset it, transmitted through trade links and closer integration between markets. This tendency for markets across the world to move together means reduced risk reduction benefits from diversification, hence a higher cost of capital. The key issue therefore is whether the risk of the new investment is diversifiable or not. If returns across markets are significantly positively correlated and the risk undiversifiable, the new project in Canvia may therefore command a risk premium although no justification is provided for the chief executive's premium of 3% which would require further investigation and analysis.

3 (a) Rationale for hedging policy

Within the framework of Modigliani and Miller, Boullain Co's CEO is correct in stating that a company's hedging policy is irrelevant. In a world without transaction or agency costs, and where markets are efficient and information symmetrical, hedging creates no value if shareholders are well diversified. Shareholder value may even be destroyed if the costs associated with hedging exceed the benefits.

However, in the real world where market imperfections exist, including the transaction costs of bankruptcy and other types of financial distress, hedging protects shareholder value by avoiding the distress costs associated with potentially devastating foreign exchange fluctuations.

Active hedging may also benefit debt-holders by reducing the agency costs of debt. A clearly defined hedging policy acts as a signalling tool between shareholders and debt-holders. In this sense, hedging allows for higher leverage and a lower cost of debt and reduces the need for restrictive covenants.

Communication of policy with stakeholders

Even when foreign exchange risks are hedged, the funding of variation margin payments on exchange traded futures can create financial distress. A well communicated hedging strategy allows debt providers to make informed decisions about Boullain Co's ability to service its debt.

Agency costs and the risk of financial distress also impact the expected wealth of employees who, unlike shareholders, may not enjoy the risk reduction benefits of a diversified portfolio. A consistent hedging policy reduces the risks faced by employees which may serve to benefit Boullain Co in the form of motivational and productivity improvements.

Customers and suppliers have claims on a company which create shareholder value but are conditional upon Boullain Co's survival. Suppliers may invest in production systems which create value in the form of lower costs. For customers, these claims reflect promises of quality and after-sales service levels which enable Boullain Co to charge higher prices. In both cases, shareholder value is created as long as the customers and suppliers believe these claims will be honoured. One way of achieving this is by implementing a hedging strategy and communicating it to stakeholders.

In conclusion, management should attempt to communicate the principles underlying its hedging strategy and the benefits to shareholder value in the form of reduced agency and distress costs. In this way, stakeholders can make informed decisions about the potential risks and impact on their expected wealth.

(b) Forward contract

$18,600,000 x 0·8729 = €16,235,940

Futures

Buy September € futures

Calculation of futures price
Spot rate (US$/€1) = 1/0·8707 = 1·1485
Predicted futures using spot rate = 1·1422 + ((1·1485 – 1·1422) x 1/7) = 1·1431
Or using futures: 1·1422 + ((1·1449 – 1·1422) x 1/3) = 1·1431

Number of contracts
Expected receipt = $18,600,000/1·1431 = €16,271,542
Number of contracts = €16,271,542/€200,000 = 81·4, say 81 contracts

Amount underhedged = $18,600,000 – (81 x €200,000 x 1·1431$/€) = $81,780
Receipt at forward rate = $81,780 x 0·8729 €/$ = €71,386

Outcome

	€
Futures (81 x 200,000)	16,200,000
Forward market	71,386
	16,271,386

Options

September € call options

Number of contracts
Payment = \$18,600,000/1·1420\$/€ = €16,287,215
Number of contracts = €16,287,215/€200,000 = 81·4, say 81 contracts

Premium
Premium = 81 x €200,000 x 0·0077\$/€ = \$124,740
Translate at spot = \$124,740 x 0·8711€/\$ = €108,661

Amount underhedged = \$18,600,000 – (81 x €200,000 x 1·1420\$/€) = \$99,600
Receipt at forward rate = \$99,600 x 0·8729€/\$ = €86,941

Outcome

	€
Options (81 x €200,000)	16,200,000
Premium	(108,661)
Forward market	86,941
	16,178,280

Recommendation and discussion

The forward and futures contracts fix the exchange rate with the futures contract generating a slightly higher euro receipt compared to the forward. However, the futures contract is exposed to basis risk.

The futures contract is also marked-to-market daily. This means that Boullain Co deposits an initial margin with the clearing house when the futures position is opened. The notional profit or loss at each day's closing settlement price is added to or subtracted from the margin account balance. If the margin account balance falls below the level of the maintenance margin, Boullain Co is required to deposit additional funds to top-up the margin account, known as a variation margin. Boullain Co needs to consider that the initial margin and any variation margins would need to be funded and would impact cash flow in the short term.

The option outcome of €16,178,280 provides a worst-case scenario based on the option being exercised. The option premium is expensive which results in a lower receipt if the option is exercised. Unlike the forward and futures contracts, however, the option allows Boullain Co to retain the upside whilst also protecting against the downside risk. Based on the forward and futures markets, the dollar is expected to strengthen and it is therefore unlikely the option would be exercised.

The final hedging choice depends on the board's attitude to risk. However, assuming there is no default risk associated with the forward contract, this may be the best choice under the circumstances. The board may also wish to consider the possibility of not hedging since the dollar is expected to strengthen.

In order to reduce counter-party risk, Boullain Co deposits an initial margin with the clearing house when the futures position is opened. The notional profit or loss at each day's closing settlement price is added to or subtracted from the margin account balance. If the margin account balance falls below the level of the maintenance margin, Boullain Co is required to deposit additional funds to top-up the margin account, known as a variation margin.

If Boullain Co makes a notional profit on any day, the amount in the margin account will be greater than the specified maintenance margin and no variation margin is required. The profit on each such a day may be withdrawn in cash.

					Marks
1	**(a)**	Sell-off assets (examples of points could include company less appealing, use of proceeds from sell-off, how Kingtim Co will be viewed, smaller company being more affordable)			3–4
		Onerous contracts (examples of points could include cost burden, acquirer may be prepared to bear it, corporate governance requirements, shareholder reaction)			3–4
				Max	7
	(b)	**(i)**	Cost of equity		1
			Value of equity		1
			Value of existing bonds		1
			WACC		1
					4
		(ii)	Annual spot yield curve		1
			Value of new bonds		3
			Market value of new bonds		1
			Post-tax cost of debt of proposed bonds		2
					7
		(iii)	Asset beta garden centre business		1
			Weighted asset beta		2
			Revised equity beta		1
			Revised cost of equity		1
			Revised WACC		2
					7
		(iv)	Cost of capital		1–2
			Assumptions		2–3
			Equity holders		2–3
			Bond holders		2–3
				Max	9
	(c)	Up to 2 marks for each well-explained issue (issues could include rewarding expertise/seniority fairly, balancing shareholder and employee interests, unfair to question staff's commitment, society's expectations/law, expectations raised by Kingtim Co's statements, employee/customer reaction to poor practices)		Max	6
	Professional skills marks				10
				Total	**50**

Professional skills marks

Communication
– General report format and structure (use of headings/sub-headings and an introduction)
– Style, language and clarity (appropriate layout and tone of report response, presentation of calculations, appropriate use of the tools)
– Effectiveness of communication (answer is relevant, specific rather than general and focused to the requirement)
– Adherence to the details of the chief executive's proposal in the scenario

Analysis and evaluation
– Appropriate use of the data to determine suitable calculations
– Appropriate use of the data to support discussion and draw appropriate conclusions
– Demonstration of reasoned judgement when considering key matters for Kingtim Co
– Demonstration of ability to consider relevant factors applicable to increasing the level of debt finance

Marks

Scepticism

– Effective challenge of information, evidence and assumptions supplied, and techniques carried out to support key facts and/or decisions
– Demonstration of the ability to probe into the reasons for issues and problems, including the identification of missing information or additional information, which would alter the decision reached by Kingtim Co

Commercial acumen

– Recommendations are practical and plausible in the context of Kingtim Co's situation
– Effective use of examples and/or calculations from the scenario information and other practical considerations related to the context to illustrate points being made
– Recognition of external constraints and opportunities as necessary

Maximum 10 marks

2	**(a)**	Exchange rates		2
		Tax		2
		Working capital		1
		Land and buildings residual value		1
		Remittable cash flows in euros		1
		Contribution from component		2
		Tax on contribution		1
		Net present values		2
		Comment		2–3
			Max	14
	(b)	Up to 2 marks per point	Max	6
		(e.g. argument for WACC, total risk v market risk, correlation across countries)		
	Professional skills marks			5
			Total	**25**

Professional skills marks

Analysis and evaluation

– Appropriate use of the data to determine suitable calculations
– Appropriate use of the data to support discussion and draw appropriate conclusions
– Appraisal of information objectively to make a recommendation

Scepticism

– Effective challenge of information, evidence and assumptions supplied, and techniques carried out to support key facts and/or decisions
– Demonstration of ability to consider all relevant factors applicable to a given course of action

Commercial acumen

– Recommendations are practical and plausible in the context of Colvin Co's situation
– Effective use of examples and/or calculations from the scenario information and other practical considerations related to the context to illustrate points being made

Maximum 5 marks

				Marks
3	(a)	Rationale for hedging policy		2–3
		Communication of policy with stakeholders		3–4
		(examples of stakeholders may include debt providers, employees, customers and suppliers, policy may include example to reduce agency and distress costs)		
			Max	6
	(b)	Forward		1
		Buy futures and call option		1
		Number of futures contracts		1
		Predicted futures rate		1
		Underhedge futures		1
		Number of options contracts		1
		Option premium		1
		Underhedge options		1
		Outcome		1
		Discussion of outcome		2–3
		Explanation of margin requirements		2–3
			Max	14
	Professional skills marks			5
			Total	**25**

Professional skills marks

Analysis and evaluation

– Appropriate use of the data to determine suitable calculations
– Appropriate use of the data to support discussion and draw appropriate conclusions
– Appraisal of information objectively to make a recommendation

Scepticism

– Effective challenge of information supplied to support key facts and/or decisions
– Demonstration of ability to consider relevant factors applicable to hedging options

Commercial acumen

– Recommendations are practical and plausible in the context of Boullain Co's situation
– Effective use of examples from the scenario information and other practical considerations related to the context to illustrate points being made

Maximum 5 marks