

# INSTITUTE AND FACULTY OF ACTUARIES

## EXAMINATION

5 October 2011 (pm)

### Subject SA5 — Finance Specialist Applications

*Time allowed: Three hours*

#### **INSTRUCTIONS TO THE CANDIDATE**

1. *Enter all the candidate and examination details as requested on the front of your answer booklet.*
2. *You have 15 minutes at the start of the examination in which to read the questions. You are strongly encouraged to use this time for reading only, but notes may be made. You then have three hours to complete the paper.*
3. *You must not start writing your answers in the booklet until instructed to do so by the supervisor.*
4. *Mark allocations are shown in brackets.*
5. *Attempt all three questions, beginning your answer to each question on a separate sheet.*
6. *Candidates should show calculations where this is appropriate.*

#### **AT THE END OF THE EXAMINATION**

*Hand in BOTH your answer booklet, with any additional sheets firmly attached, and this question paper.*

*In addition to this paper you should have available the 2002 edition of the Formulae and Tables and your own electronic calculator from the approved list.*

- 1**
- (i) (a) Describe what is meant by an off-balance-sheet activity.  
(b) Outline three examples of such an activity. [5]
  - (ii) Discuss why a stock analyst will be concerned about off-balance-sheet activity and how he might address these concerns. [3]

A bank has decided to investigate its own off-balance-sheet activities in order to estimate the risks that these activities are generating.

- (iii) (a) List the risks that will be identified in the investigation.  
(b) Suggest activities that may be generating the risks listed in (a). [5]
- (iv) List the key controls that should be put in place to control the bank's off-balance-sheet risks. [3]
- (v) Explain how the control framework in (iv) will affect the evaluation of the bank's capital requirements under Basel II. [2]

The bank estimates that it will not have sufficient capital to operate under the new Basel II requirements because it manages a large fund of corporate loans (the Fund) which do not attract a capital charge at the present time but will do so under Basel II. Under the current arrangement the bank sells corporate loans to the Fund. The Fund issues short term (30 day) securities to capital market investors to fund the purchase of the corporate loans. The bank manages the loans for the Fund and charges a fee. The bank provides to the Fund a large undrawn loan facility in order to satisfy the investors that they will be repaid by the Fund at maturity.

- (vi) (a) Describe the main risk to the bank arising from the Fund.  
(b) Discuss ways that the bank could mitigate this risk. [4]
- [Total 22]

**2** A regulatory body is concerned about a new market in Collateralised Mortgage Obligations (CMOs) that has recently emerged in their country.

- (i) (a) Describe the format of a CMO.  
(b) Explain why a CMO is an off-balance-sheet activity for the issuer. [5]
  - (ii) (a) Explain the main risks that a purchaser of CMOs is taking on.  
(b) Describe what determines the size of these risks. [10]
  - (iii) Suggest rules that a regulator may impose on issuers of CMOs to prevent market abuse and enhance security for purchasers of these securities. [6]
  - (iv) Discuss possible rules that a regulator may impose on insurance companies which should restrict an insurance company's desire or ability to invest in CMOs. [8]
- [Total 29]

**3** Easy Going Plc is a large company that operates in an industry with relatively few competitors. It has to date been generating strong positive free cash flows with no debt on its balance sheet. However, the company has failed to grow its profits in recent years, and while the management knows the company and the industry well, it has been running the company's capital in a relatively inefficient manner.

(i) Explain the likely reasons for management's inefficient running of the company's capital. [5]

(ii) Suggest ways to improve the efficiency of management's use of capital. [6]

The finance director of Easy Going has suggested that, given the current low interest rate environment, it would be cheaper to finance the company entirely from debt rather than equity.

(iii) Discuss the main issues that arise from this suggestion. [10]

Over the next twelve months Easy Going borrows a significant amount of money using the debt capital markets. It uses this money and its surplus cash reserves to buy back its own shares. Unfortunately raw material prices have risen sharply and Easy Going is now finding it difficult to make the interest payments on its debt.

(iv) Outline the options available to management under this scenario that are likely to conflict with the interests of the other stakeholders. [3]

A review of Easy Going's corporate governance practices is to be undertaken.

(v) (a) Describe the main features of a large public company's corporate governance policy that would make it consistent with best practice.

(b) Explain how these features would help to prevent some of the management options identified in (iv) from taking place. [7]

(vi) Describe the direct and indirect costs, including agency costs, associated with financial distress and bankruptcy. [5]

(vii) Describe different investment strategies that an asset manager specialising in investing in the debt of distressed companies can implement in order to profit from companies in various stages of distress. [8]

(viii) Describe the main risks associated with investing in the debt of distressed companies. [5]

[Total 49]

**END OF PAPER**