

# INSTITUTE AND FACULTY OF ACTUARIES



## EXAMINATION

30 September 2013 (am)

### 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 both 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** The chairman of a financial services company based in Germany has read a newspaper article which suggests that in order for countries of Europe to successfully adopt a common currency, it is necessary for fiscal and monetary policies of the participating countries to be centrally determined. The newspaper further argues that it does not anticipate European governments being able to achieve this. As a consequence, the chairman has proposed to his board that the company should relocate most of its operations to the UK. The company will retain a branch in Frankfurt to service its remaining German customers, but intends to conduct the majority of its business in the UK in future.

You work for a global consulting firm and have been asked to assist the company with its relocation analysis.

- (i) State what is meant by fiscal policy and monetary policy. [2]
- (ii) Identify the principal changes in the application of fiscal policy and monetary policy in the UK government's approach to economic management over the past 50 years. [4]

The chairman has asked for a report addressing the advantages and disadvantages to the company of leaving the European Monetary Area and relocating to the UK.

- (iii) Outline the main points and conclusions you would make in this report, with particular attention to:
  - (a) changes to the competitive environment which the company may face
  - (b) the potential impact on the company's volume of business
  - (c) new risks which would arise in relation to the company's Frankfurt office and to any existing outstanding Euro-denominated debt securities
  - (d) changes that the company should expect in its typical approach to raising finance going forward
  - (e) the regulatory environment in which the company would operate within the UK, including any anticipated future developments therein

You do not need to address employment or staff issues. [14]

One of the company's senior employees has asked for assistance in determining his likely tax bill should he agree to move to the UK. You are given the following data about his circumstances.

- He will be a full-time employee on a gross salary of £100,000 per annum.
- His wife is not employed but will manage the couple's savings.
- They will live in an apartment provided by the company. The company will pay the rent of £1,500 per month for this apartment.

- He and his wife jointly own a portfolio of shares which they expect will be invested fully in UK equities. His wife estimates that the portfolio will generate capital gains of £11,000 and net dividends of £2,500 during the tax year.
  - They jointly own a savings account in Country X which typically yields gross interest of 1,200 Country X Francs per year, from which the Country X tax authorities will withhold 400 Francs. The exchange rate between the UK and Country X has been constant at £1 = 1.5 Francs for many years.
  - His wife owns shares in a UK venture capital trust which she invested into several years ago but which will be sold in full during the tax year. She expects to realise a capital gain of £8,000 from the sale.
  - He is a keen gambler and expects to win £1,000 betting on horse racing during the year.
- (iv) Estimate the couple's tax liability using the published tax rates and allowances for the 2012/2013 tax year. You should assume that they move to the UK at the start of a new tax year. [8]

The company already operates under the directives of the European Commission's Financial Services Action Plan (FSAP), in particular:

- The Market Abuse Directive
  - The Markets in Financial Instruments Directive
  - The Prospectus Directive
  - The Transparency Directive
- (v) State the topic addressed by each of these directives. [2]
- (vi) Outline the principal provisions of each of these directives. [4]
- (vii) Explain how each of these directives contributes towards the aims of the FSAP. [4]

The chairman has heard that a politician in the UK has proposed that banks should be forced to separate their retail (or commercial) banking operations from their investment banking and proprietary trading operations.

- (viii) Suggest reasons why you believe the politician has made this proposal. [4]
- (ix) Discuss the likely impact of the proposal on:
- (a) the company, assuming it chooses to relocate to the UK; and
  - (b) the competitive position of the UK in global financial services

[8]

[Total 50]

- 2 (i) Outline the main features of the insurance sector in the UK. [3]

XYZ Insurance is a small UK general insurance company. The firm has recently decided to sell credit default protection contracts that would pay out in the event of a specified entity defaulting on its debt payments.

- (ii) Describe the main factors that XYZ should assess when setting the premiums for credit default protection contracts. [5]
- (iii) Describe the corporate taxation framework for general insurance companies in the UK. [4]
- (iv) Discuss the main reasons why XYZ may want to transfer some of the credit default risk liabilities to other parties. [5]

XYZ is considering setting up a limited-life special purpose vehicle (SPV) to provide additional capital for writing credit default protection contracts. The SPV will collect ceded premiums from the credit default protection contracts underwritten by XYZ, and in return will pay out the specified default claims back to XYZ. The SPV's capital structure will consist of both debt and equity layers.

- (v) Discuss the main SPV characteristics that should be considered in the design and set-up of this SPV. [15]
- (vi) Describe the features that could be enhanced or included in this SPV to make it more attractive for institutional investors. [7]
- (vii) Discuss to what extent this SPV would be an appropriate investment for a UK pension scheme, including the risks arising. [6]

The UK government is considering changing legislation to prevent insurance companies from underwriting financial risks, including credit default protection contracts.

- (viii) Discuss the likely reasons for and implications of this proposed change. [5]

[Total 50]

**END OF PAPER**