# UNIVERSITY OF EXETER <br> SCHOOL OF BUSINESS AND ECONOMICS 

January 2009

## INVESTMENT ANALYSIS I

## Duration: 2 HOURS

## Module Convenor - Dr Christina Dargenidou

You are to answer ONE question from section $A$ and any TWO questions from section $B$.

Approved calculators permitted.
This is a Closed Note exam.
All questions carry a maximum of 100 marks. Total marks awarded out of 300 are scaled to 100 per cent.

## SECTION A

## You must answer EITHER Question 1 OR Question 2 in this section.

## Question 1

## Airlines

The Group's principal activity is providing airline services on short-haul and medium-haul point-to-point routes within Europe. It operates through 77 airport networks spread across 21 countries. The Group's aircraft fleet consist of 55 owned and 82 under operating lease, comprising 107 Airbus A319 and 30 Boeing 737-700.
a) Calculate the basic financial ratios required to determine the financial performance and position of the company for the years 2006 and 2007. You are expected to estimate the following ratios:
Performance: (Return On Equity and its decomposition to Net Profit Margin, Asset Turnover, Financial Leverage); efficiency (Days' accounts receivable, Days' inventory, Days' accounts payable, Property Plant \& Equipment turnover);Iiquidity (Current ratio, Quick ratio, Cash ratio, Operating cash flow ratio, Cash cycle) and solvency (Debt to equity and Interest coverage).
[50 marks]
b) Interpret the ratios you have calculated in part (a) and, on the basis of this information and any other information you feel to be relevant, comment upon the financial position and performance of the company. The information provided here is summarised; if you believe that you need more detailed information to interpret your ratios, state what this is and how this would improve your interpretation.
[50 marks]

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\text { [Total = } 100 \text { marks] }
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| AIRLINE | BALANCE SHEET DATA | 2007 | 2006 | 2005 |
| :---: | :---: | :---: | :---: | :---: |
| OP | Property,Plant and | 1,022 | 752 | 464 |
|  | Equipment(Gross) |  |  |  |
| OP | Minus: Accum. Depreciation | 87 | 56 | 38 |
| OP | Property, Plant and | 936 | 696 | 426 |
|  | Equipment (Net) |  |  |  |
| OP | Investments | 33 | 27 | 0 |
| OP | Other non-current assets | 381 | 314 | 295 |
|  | Total non-current assets | 1,350 | 1,036 | 721 |
| FIN | Cash and Equivalents | 943 | 874 | 696 |
| OP | Receivables net | 193 | 167 | 135 |
| OP | Inventories | 0 | 0 | 0 |
| OP | Other current assets | 30 | 47 | 60 |
|  | Total current assets | 1,166 | 1,087 | 890 |
|  | Total assets | 2,516 | 2,123 | 1,611 |
| FIN | Short Term Debt \& Current Portion Due Long Term Debt | 41 | 33 | 16 |
| OP | Accounts payable | 40 | 32 | 7 |
| OP | Income taxes payable | 90 | 47 | 39 |
| OP | Other current liabilities | 452 | 398 | 336 |
|  | Total current liabilities | 621 | 509 | 398 |
| FIN | Long term debt | 479 | 447 | 201 |
| FIN | Provisions | 136 | 73 | 70 |
| OP | Deferred taxes | 35 | 32 | 28 |
| OP | Other non-current liabilities | 93 | 80 | 75 |
|  | Total non-current liabilities | 742 | 631 | 374 |
| EQ | Shareholders' equity | 1,152 | 983 | 840 |
| EQ | Reserves | 0 | 0 | 0 |
| EQ | Preferred equity | 0 | 0 | 0 |
|  | Total equity | 1,152 | 983 | 840 |
| OP | Minority interest | 0 | 0 | 0 |
|  | Total liabilities and equity | 2,516 | 2,123 | 1,611 |
|  | Cash flow from operating activities | 271 | 225 | 196 |

Turn over/...
AIRLINES: INCOME STATEMENT DATA ..... 2007 ..... 2006
Sales1,7971,620
Cost of goods/services sold ..... 1,495 ..... 1,392
Depreciation/amortisation expense ..... 34 ..... 28
Gross income ..... 268 ..... 200
Selling General Administrating expenses ..... 0 ..... 0
Other operating expense(+)/income(-) ..... 84 ..... 83
Profit before interest and taxes ..... 184 ..... 116
Interest income ..... 53 ..... 35
Interest expense ..... 35 ..... 23
Net interest expense ..... -18 ..... -13
Other expenses(+)/income(-) ..... 0 ..... 0
Profit before tax ..... 202 ..... 129
Tax ..... 50 ..... 35
Profit after tax ..... 152 ..... 94
Discontinued operations ..... 0 ..... 0
Minority interest ..... 0 ..... 0
Net profit ..... 152 ..... 94

## Question 2

## Food retail

The Group's principal activity is providing grocery and related retailing services. The Group's supermarket operations has a range of own brand products such as fresh produce, food and grocery products. In addition many stores provide delicatessen, meat and fish counters, pharmacies, coffee shops, restaurants and petrol stations. The Group serves through 823 stores throughout the United Kingdom, comprising 504 supermarkets and 319 convenience stores.
a) Calculate the basic financial ratios required to determine the financial performance and position of the company for the years 2006 and 2007. You are expected to estimate the following ratios: Performance: (Return On Equity and its decomposition to Net Profit Margin, Asset Turnover, Financial Leverage); efficiency (Days' accounts receivable, Days' inventory, Days' accounts payable, Property Plant \& Equipment turnover);liquidity (current ratio, quick ratio, cash ratio, operating cash flow ratio, cash cycle) and solvency (Debt to equity and interest coverage).
[50 marks]
b) Interpret the ratios you have calculated in part (a) and, on the basis of this information and any other information you feel to be relevant, comment upon the financial position and performance of the company. The information provided here is summarised; if you believe that you need more detailed information to interpret your ratios, state what this is and how this would improve your interpretation.
[50 marks]
[Total $=100$ marks]

Turn over/...

FOOD RETAIL: INCOME STATEMENT DATA ..... 2007 ..... 2006
Sales ..... 17,837 ..... 17,151
Cost of goods/services sold ..... 16,354 ..... 15,551
Depreciation/amortisation expense ..... 481 ..... 500
Gross income ..... 1,002 ..... 1,100
Selling General Administrating expenses ..... 470 ..... 574
Other operating expense(-)/income(+) ..... 43
Profit before interest and taxes ..... 580 ..... 569
Interest income ..... 29 ..... 15
Interest expense ..... 128 ..... 107
Net interest expense ..... 92
Other expenses(-)/income(+) ..... -2 ..... 0
Profit before tax ..... 479 ..... 477
Tax ..... 150 ..... 153
Profit after tax ..... 329 ..... 324
Discontinued operations ..... 0 ..... 0
Minority interest ..... 0
-1
Net profit ..... 329 ..... 325
Turn over/...

## SECTION B

You must answer ANY TWO questions from this section.

## Question 3

a) Discuss the general limitations of the widely accepted and popular Return On Equity decomposition into Net Profit Margin, Asset Turnover, Financial Leverage.
[20 marks]
b) Apply an "advanced" Return On Equity decomposition that takes into account the distinction between operating and financing activities. Use the data in EITHER Question 1 OR Question 2. The operating (OP), financial (FIN) assets and liabilities and equity (EQ) are clearly indicated.
[30 marks]
c) In the light of your discussion in 3a, assess this part of performance that is due to the operating decisions of the firm as reflected by the Operating Return on Assets and the part of the performance that is attributed to the financial decisions of the firm (Financial leverage gain or loss). Is your assessment of the ROE different now than under the earlier ROE decomposition into Net Profit Margin, Asset Turnover, Financial Leverage? Why?
[50 marks]
[Total $=100$ marks]

## Question 4

Discuss the implications of the following items with respect to the strength of the financial position (or how the following may signal a "weak balance-sheet") of the firm:

- Operating leases
- Under-funded pensions
- Unearned revenues


## Question 5

- Discuss the challenges for the analyst arising from acco8unting rules prohibiting the capitalisation of expenditures related to intangibles (e.g. building a customer base by marketing campaigns, research outlays).
- Explain the impact of managerial discretion on the balance sheet and the income statement with respect to Impairments in non-current assets. Give examples of warning signals of Impairments.


## Question 6

Discuss the concepts of

- High quality accounting standards [35 marks]
- External auditing
[35 marks]
- Legal liability [15 marks]
- Public enforcement [15 marks]
as factors enhancing accounting quality, giving examples where appropriate.

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\text { [Total = } 100 \text { marks] }
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## End of Paper

