**SIA Module worksheet week 3**

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| Seminar **Questions** (to check and/or develop your relevant knowledge on investment appraisal) | **Answers** (write here in your own words & underline key concepts) | e.g. **Illustrate** from last year’s case study – find this data in the annual report of the target company or the exemplar assessment | NB - **Find** the equivalent data for the assessment case study you are tasked with analysing from the annual report of target co. |
| 1. What are the main techniques used to appraise strategic investments made by a company? | Payback method  Discounted cash flow (DCF) methods:   1. Net present value (NPV) 2. Internal rate of return (IRR) | What is the balance sheet value of the target company (Total assets net of liabilities)?  $2,375M – 881.4 = 1,493.6 million or $1.5bn (total shareholders equity) |  |
| 1. Why might earnings/profits reduce when sales revenues have been growing? | Costs and expenses of running a much larger business with additional fixed costs, not just variable costs, may be inefficient | What was the % growth in:   1. sales revenue (1,312-1,007)/1,007 = 30.3% 2. operations and support costs? (675-454)/454 = 48.7% |  |
| 1. How can we work out the length of time it will take to pay back the amount invested in a project? | Divide the initial investment by the average annual income net of costs expected in return | How many years would it take to payback the bid price with average EBITDA\* if there was no growth in revenues? 7,300m/140m = 52 yrs |  |
| 1. Define the following terms    1. Revenue growth    2. EBITDA\*    3. Payback    4. DCF    5. NPV | See glossary   1. The % increase in revenue anticipated in future years (often based on past growth plus any performance improvement) 2. Earnings (profit) before deducting interest, tax or depreciation & amortisation (overall profit) 3. The length of time it is expected to take for a future net income stream to cover the initial cost of an investment 4. Discounted cash flow = sum of future estimated cashflows discounted at the cost of capital to a present value equivalent 5. Net present value is the sum of discounted flows (DCF) anticipated in the future, net of any initial investment costs | Find the values for each term   1. Revenue growth Q2 30.3% 2. EBITDA\* (in 2019 and average)   $-6.3+115.4 = 109.1m in 2019 (+170.9 in 2018)/2 = 140m ave.   1. Payback (if EBITDA doubles each year from 2019) Q3 with   2019 EBITDA 7300/109.1m = 67 yrs cumulative doubling in **5 yrs** =63 x |  |

Note Q4 (c) key

Growth factor each year x2 (double) t= 0 1 2 3 4 **5**

EBITDA times 1 2 4 8 16 32

Cumulative 1 3 7 15 31 **63** (closest to 67 years)