

## *Lecture 4 – Team Activity*

ACME Corp Income Statement for period ending 30 June 2011		ACME Corp Balance Sheet as at 30 June		
			2011	2010
Net sales	100	Current assets	100	110
COGS	55	PPE		
Depreciation	10	Cost	400	420
EBIT	35	Accum. depr	30	20
Interest expense	5	Carrying amount	370	400
Taxable income	30			
Taxes	9	Total assets	470	510
Net income	21			
		Current liabilities	80	100
		Non-current L	250	270
		Owners Equity	140	140
		Total L and OE	470	510

Note: all figures are given in millions of dollars (\$m).

**Question 1:** Using the financial statements above, find the Cash Flow From Assets (CFFA) for 2011.

$$CapEx = NFA_{now} - NFA_{before} + Depreciation$$

$$\Delta NWC = (CA_{now} - CL_{now}) - (CA_{before} - CL_{before})$$

$$CFFA = NI + Depr - CapEx - \Delta NWC + IntExp$$

**Team Name:**

## Question 2:

Project Data	
Project life	4 yrs
Initial investment in equipment	\$4m
Depreciation of equipment per year	\$1m
Unit sales per year	2m
Sale price per unit	\$8
Variable cost per unit	\$3
Fixed costs per year, paid at the end of each year	\$0.3m
Tax rate	30%
Discount rate	10%

### Notes:

1. The firm's current assets and liabilities are \$3m and \$2m respectively right now. Due to the project, both will increase by \$0.2m per year for the life of the project, and they can be sold at cost at the end of the project.
2. The equipment used in the project can also be used in the firm's other activities which will save \$0.1m per year in pre-tax equipment hiring costs. Note: Pre-tax costs are gross figures, they have not been multiplied by  $(1 - t_c)$ .
3. The new project will reduce some of the firm's other revenue streams since some customers will switch to this project from the existing ones. The effect is expected to have a present value of negative one million dollars (-\$1m).
4. This is the second time that this project was considered. Last time, the firm began the project and paid a deposit on the equipment, only to cancel the order and lose the deposit when the previous management decided that the project was actually not a good idea. The deposit that was forfeited was \$0.5m.

Formulas:

$$NI = (Rev - COGS - Depr - IntExp) \cdot (1 - t_c), \text{ or alternatively}$$

$$NI = (Q \cdot (P - VC) - FC - Depr - IntExp) \cdot (1 - t_c)$$

$$\Delta NWC = (CA_{now} - CL_{now}) - (CA_{before} - CL_{before})$$

$$CFFA = NI + Depr - CapEx - \Delta NWC + IntExp$$

$$NPV = PV(CFFA)$$

**Question 2a:** Comment on notes 1-4. Which cash flows need to be included in the NPV analysis of the project?

**Question 2b:** Should the firm proceed with the project?

**Question 2c:** What will be the increase in the value of the firm when it completes the project? Assuming that the firm has **ten million** shares and is unleveraged (in other words it has no debt), calculate the incremental increase in share price due to the project.